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**Isola & Ruiz, LLP**

**2007 Second Quarter  
Groundwater Monitoring Report**

**Former CENCO Refinery  
12345 Lakeland Road  
Santa Fe Springs, California**

**July 2007**

**2007 Second Quarter  
Groundwater Monitoring  
Report**

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## **1. Introduction**

ARCADIS BBL has prepared this quarterly Groundwater Monitoring Report for CENCO Refining Company on behalf of Isola and Ruiz, LLP. The former CENCO refinery (Site) is located at 12345 Lakeland Road in Santa Fe Springs, California (Figure 1). This report describes the groundwater monitoring activities performed at the Site, the Lakeland property, the Metropolitan State Hospital property, the Bloomfield property, and the Walker property (Figure 2). The purpose of the groundwater monitoring program is to evaluate groundwater quality beneath and in the vicinity of the site. The monitoring event discussed in this report was conducted between May 7 and 11, 2007 in accordance with the California Regional Water Quality Control Board (RWQCB) Los Angeles Region Cleanup and Abatement Order (CAO) 97-118. A passive hydrocarbon recovery system was installed in the previous quarter in wells with measurable free-phase petroleum hydrocarbons (FPPH) or sheens. Monitoring activities and findings for the passive hydrocarbon recovery system are presented in this report.

### **1.1 Site Description**

The site is approximately 55 acres in size and is bordered to the north by Florence Avenue, to the south by Lakeland Road, and to the east by Bloomfield Avenue. Commercial/light industrial properties border the site to the west. The site was operated as an oil refinery from the 1930s until July 1995. Historical aerial photographs indicate that the western portion of the site may have been used for agricultural purposes from approximately 1928 to 1938. Oil production-related structures such as ponds and aboveground holding tanks may have also been located on-site during these years. The refinery is not currently in operation; however, many of the structures related to the former oil refinery operations remain on-site. These structures are scheduled to be removed from the site prior to the redevelopment of the property for commercial/light industrial use (Haley & Aldrich, Inc., 2005).

Previous refining operations included processing crude oil into several grades of fuel including kerosene, leaded gasoline and aviation fuel, unleaded gasoline, jet fuel, high and low sulfur diesel, fuel oil, and petroleum coke. Soil and groundwater beneath and in proximity to the site have been impacted by past site operations. Soil and groundwater investigations are being conducted pursuant to two CAOs (85-17 and 97-118) issued by the RWQCB to Powerine Oil Company (CENCO Refining Company) in 1985 and 1997 (Haley & Aldrich, Inc., 2005).

## 1.2 Summary of Groundwater Monitoring Activities

Groundwater monitoring has been conducted on-site since August 1986. The last groundwater monitoring event was performed by ARCADIS BBL in February of 2007. The quarterly groundwater monitoring program currently consists of 32 wells as described below (Figure 2):

- Thirteen on-site groundwater monitoring wells;
- Ten off-site downgradient groundwater monitoring wells on the former Lakeland property and the Metropolitan State Hospital property;
- Four off-site groundwater monitoring wells southeast of the site on the Walker property;
- Three off-site groundwater monitoring wells east of the site on the Bloomfield property; and
- Two on-site deep former water production wells.

During this monitoring round, 32 wells were gauged to determine groundwater elevation. Of the 32 monitored wells, two were dry (MW-202 and MW-601A) and one contained FPPH (MW-600A) and, therefore, was not sampled. One of the wells (W-3A) contained a sheen. Monitoring wells MW-204 and MW-603 were gauged but not sampled. The screen of MW-204 appeared to be damaged as the well contained soil and filter-pack sand, while MW-603 on the hospital property was inaccessible for sampling.

Groundwater samples were collected from a total of 27 wells and analyzed for total petroleum hydrocarbons as gasoline (TPH-g) by U.S. Environmental Protection Agency (EPA) Method 8015M (DHS LUFT), volatile organic compounds (VOCs) and oxygenates by EPA Method 8260B, and hexavalent chromium by EPA Method 7199. In addition, groundwater samples from five of these wells were analyzed for methane, nitrate, sulfate, alkalinity, and ferrous iron to evaluate potential evidence of biodegradation of petroleum hydrocarbons in groundwater.

All samples were transported to TestAmerica Analytical Testing Corp. (TestAmerica), under proper chain-of-custody procedures. TestAmerica is accredited by the California Department of Health Services, Environmental Laboratory Accreditation Program.

Water quality parameters including temperature, pH, turbidity, electric conductivity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were measured in the field prior to well sampling.

Field activities were conducted in accordance with the Standard Operating Procedures (SOPs) prepared for the site. SOPs for groundwater sampling, equipment decontamination, and investigation-derived waste handling and storage are included as Appendix A.

### **1.3 Free-Phase Petroleum Hydrocarbon Recovery**

The Peatwick™ passive hydrocarbon recovery system was installed in four monitoring wells in the monitoring well network. The system was installed in well MW-600A (at the Metropolitan State Hospital) on February 6, 2007, in monitoring wells EW-1 and W-3A (at the Walker Property) on February 15, 2007, and in well MW-504 (Site property) on February 15, 2007. FPPH has been historically detected in MW-600A, while EW-1, W-3A, and MW-504 were reported to contain a sheen in several of the past few groundwater monitoring events. The passive recovery system absorbent socks have been replaced as needed.

## **2. Groundwater Monitoring Results**

The results of this quarterly groundwater monitoring event are presented below. A summary of groundwater level measurements, depth to water, depth to hydrocarbons, FPPH thickness, and groundwater elevation is presented in Table 1. Analytical results are summarized in Tables 2 through 5. The FPPH thickness and water level measurements, recorded on well measurement forms, are included in Appendix B and complete laboratory reports are enclosed in Appendix C. A comparison of available data from this monitoring event and last quarter's (February 2007) sampling event is presented in Table 6. It is important to recognize that the results presented in this report do not distinguish between facility and non-facility related constituents in groundwater.

### **2.1 Groundwater Surface Elevation**

The groundwater surface elevation was calculated for each well by subtracting the water level measurement from the top of casing elevation (Table 1). Groundwater elevations were adjusted for wells with FPPH, which was assumed to have a relative density of 0.80. This is the mean density value for various petroleum hydrocarbon mixtures. Groundwater elevations are shown in Figure 3.

Based on the groundwater level measurements obtained on May 7, 2007, first encountered groundwater beneath the site vicinity ranges in depth from 84.24 to 101.36 feet below ground surface (bgs). Groundwater elevations have increased by an average of approximately 0.63 feet since February 2006 (ARCADIS BBL, 2007), compared to an increase of approximately 0.89 feet between November 2006 and February of 2007.

The average groundwater gradient across the property is approximately 0.01 feet per foot (ft/ft) as shown in Figure 3. Groundwater flow direction varies in the vicinity of the site from a south-southwest direction at the former refinery to a south-southeast direction beneath the Metropolitan State Hospital property. These flow directions are consistent with those historically reported in previous investigations.

## **2.2 Free-Phase Petroleum Hydrocarbons**

As in the previous groundwater monitoring event in February 2007, measurable FPPH (light non-aqueous phase liquid) was detected in only one monitoring well during this sampling event. However, mainly due to the application of Peatwick™ passive hydrocarbon recovery, the FPPH thickness decreased from 2.96 feet to only 0.12 feet in MW-600A. A sheen was observed in well W-3A. Based on May 2007 measurements the FPPH plume appears to be smaller than last quarter, a trend that was also observed after the 2006 fourth quarter monitoring event. FPPH thickness and depth to product are shown on Table 1.

## **2.3 Groundwater Analytical Results**

During the groundwater monitoring event that occurred between May 7 and 11, 2007, 27 wells were sampled (Figure 2). All groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g), VOCs and oxygenates, and hexavalent chromium. Additional groundwater samples were collected from 5 selected wells and analyzed for methane, nitrate, sulfate, alkalinity, and ferrous iron to evaluate potential evidence of biodegradation of petroleum hydrocarbons in groundwater. Analytical results are summarized in Tables 2 through 6 and complete laboratory reports are included in Appendix C.

### **2.3.1 TPH-g**

TPH-g was detected in 26 of the 27 analyzed samples at concentrations ranging between 0.031 J (J-flag indicates an estimated concentration below the reporting limit) milligrams per liter (mg/L) (W-7) and 25 mg/L (MW-502) (Table 2). The maximum detected TPH-g concentration during the February 2007 sampling event was 28 mg/L in well W-10 (Table 6). TPH-g levels decreased in 16 of the sampled wells (EW-1, MW-101, MW-103, MW-104A, MW-105, MW-106A, MW-201, MW-501A, MW-604, MW-607, W-4, W-8, W-9, W-10, W-11, and W-12). Wells MW-107A, MW-203, MW-205, MW-502, MW-503B, MW-504, MW-605, W-1, W-3A, and W-7 had an increase in TPH-g concentrations since the last event. Monitoring well W-3A exhibited the largest increase in TPH-g levels, a 12.6 mg/L increase since February 2007; while the most significant decrease was observed in W-10 where TPH-g concentrations dropped from 28 mg/L to 7.9 mg/L.

### 2.3.2 VOCs and Oxygenates

A summary of VOC and oxygenate analytical results is presented in Table 3. A comparison of selected VOC and oxygenate data from this monitoring event and the February 2007 monitoring event is presented in Table 6.

Benzene was present in twenty wells at concentrations ranging from 0.41 J micrograms per liter ( $\mu\text{g/L}$ ) in W-7 to 4,000  $\mu\text{g/L}$  in MW-502. Sixteen wells met or exceeded the California Maximum Contaminant Level (MCL) for benzene in drinking water of 1  $\mu\text{g/L}$ . Benzene concentrations declined in thirteen wells, namely EW-1, MW-101, MW-103, MW-106A, MW-107A, MW-201, MW-203, MW-205, MW-501A, MW-604, W-4, W-10, and W-11. An increase in benzene levels was observed in wells MW-502, MW-503B, MW-504, W-1, W-3A, W-7, and W-8.

Of the other BTEX compounds analyzed, toluene was detected in fourteen wells at concentrations ranging between 0.37 J  $\mu\text{g/L}$  (MW-104A) and 140  $\mu\text{g/L}$  (W-10), never exceeding the 150  $\mu\text{g/L}$  California MCL. Ethylbenzene was detected in fourteen wells at concentrations ranging from 0.28 J  $\mu\text{g/L}$  (MW-106A) to 500  $\mu\text{g/L}$  (MW-502), the latter exceeding the 300  $\mu\text{g/L}$  California MCL for this contaminant in drinking water. Total xylenes, including the ortho, meta, and para isomers, were detected in ten wells at concentrations ranging from 1.3 J  $\mu\text{g/L}$  (MW-503B and MW-604) to 720  $\mu\text{g/L}$  (MW-502). All xylene detections were below the California MCL of 1750  $\mu\text{g/L}$ .

The oxygenate methyl *tert*-butyl ether (MTBE), was detected in ten wells at concentrations ranging from 0.70 J  $\mu\text{g/L}$  (MW-203) to 29,000  $\mu\text{g/L}$  (MW-502). The 5  $\mu\text{g/L}$  California MCL for MTBE in drinking water was exceeded in six of these wells. MTBE levels do not appear to have significantly changed since the February 2007 sampling event.

*Tert*-butyl alcohol (TBA), another oxygenate and a byproduct of MTBE breakdown, was detected in fourteen wells at a maximum concentration of 340  $\mu\text{g/L}$  in well MW-104A, increasing from 120  $\mu\text{g/L}$  in the previous sampling event. In general, the TBA levels in the sampled wells were similar to those observed in February 2007.

In addition to the aforementioned contaminants, 27 additional VOCs were detected in the groundwater during this sampling event. The constituents are as follows with the frequency of detection shown in parentheses: sec-butyl benzene (17), cis-1,2-dichloroethene (17), isopropyl benzene (17), n-propyl benzene (16), vinyl chloride (14), *tert*-butyl benzene (11), trans-1,2-dichloroethene (11), naphthalene (11), 1,3,5-trimethyl

benzene (11), 1,1-dichloroethane (1,1-DCA) (9), 1,2,4-trimethyl benzene (9), n-butyl benzene (8), 1,2,-dichloroethane (1,2-DCA) (8), trichloroethene (TCE) (8), methylene chloride (7), 1,1-dichloroethene (1,1-DCE) (6), p-isopropyl toluene (6), di-isopropyl ether (DIPE) (4), chloroethane (3), tetrachloroethene (PCE) (3), 1,2-dichloropropane (2), chlorobenzene (1), chloroform (1), chloromethane (1), 1,4-dichlorobenzene (1), 1,1,2-trichloroethane (1), and trichlorofluoromethane (1). The highest of these VOC concentrations were of naphthalene, n-propyl benzene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene which were detected at maximum concentrations varying between 170 µg/L and 400 µg/L. As in the previous groundwater monitoring event, PCE and TCE were detected at concentrations exceeding their 5 µg/L California MCL in wells MW-105 and MW-605. High TCE levels were also observed in MW-101 and MW-201. TCE and PCE concentrations exceeding their 5 µg/L California MCL varied between 8.5 µg/L and 37 µg/L and 12 µg/L and 40 µg/L, respectively.

#### 2.3.3 Hexavalent Chromium

As in the previous groundwater monitoring event of February 2007, hexavalent chromium was detected in only one of the 27 sampled wells (MW-606), at a concentration of 0.0036 mg/L. Hexavalent chromium remains below the California MCL of 0.05 mg/L. A summary of hexavalent chromium results is presented in Table 4.

#### 2.3.4 Distribution of Constituents

Analysis of groundwater collected from MW-105, an upgradient well at the north boundary of the property, demonstrated the presence of chlorinated hydrocarbons in this part of the site. 1,1-DCA, 1,2-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, methylene chloride, PCE, 1,1,2-TCA, TCE, vinyl chloride, and DIPE were all detected in this groundwater monitoring well. The detection of these contaminants in the upgradient well suggests the presence of off-site, upgradient sources. In addition, the chlorinated hydrocarbons PCE and TCE were present only in wells located on the west side of the refinery (MW-101, MW-105 and MW-201) and the west side of the hospital (MW-605).

The highest concentrations of TPH-g detected during this sampling event were in the north-central part of the site and at the southwest corner of the site, extending southeast to the northern part of the hospital property (Figure 5). TPH-g was detected at a concentration of 7.9 mg/L in W-10, in the north-central part of the Site. TPH-g was detected in the southwestern portion of the Site in well MW-504 at a concentration of 13 mg/L. TPH-g was detected at the former Lakeland property at concentrations of 25

mg/L and 9.1 mg/L in wells MW-502 and MW-501A, respectively. In all of the aforementioned wells, the highest benzene levels were also detected: 4,000 µg/L in MW-502, 2,000 µg/L in MW-501A, 1,500 µg/L in MW-504, and 430 µg/L in W-10 (Figure 4). Wells MW-502, MW-504, W-10, and MW-501A had the highest detected ethylbenzene concentrations of 500 µg/L, 230 µg/L, 100 µg/L, and 84 J µg/L, respectively. W-10 and MW-502 also had the highest observed toluene concentration of 140 µg/L and 59 J µg/L, respectively; the highest detected 1,2,4-trimethylbenzene level of 130 µg/L and 400 µg/L, respectively; and the highest concentrations of total xylenes of 610 µg/L and 720 µg/L, respectively. The highest concentrations of MTBE (29,000 µg/L) and 1,3,5-trimethylbenzene (250 µg/L) were observed in MW-502 as well. Monitoring well MW-501A contained the highest level of n-propylbenzene, measured at 250 µg/L.

The footprint of impacted groundwater coming from the southwest corner of the site has not changed shape or size substantially since the last groundwater monitoring event in February 2007. However, the elevated TPH-g, benzene, toluene, ethylbenzene, and xylenes concentrations detected in well W-10 in the north-central portion of the site in February 2007 were observed to decline during this monitoring event.

Historical laboratory analytical results are included in Appendix D.

### 2.3.5 Biodegradation Results

Field parameter data were collected from 25 monitoring wells (the two former production wells W-7 and W-8 were not purged). A summary of the results of the biodegradation indicator parameters is presented in Table 5. The parameters pH, DO, and ORP, were measured in the field and are also shown in this table. Analyses were conducted in the laboratory for methane, nitrate, sulfate, total alkalinity, and ferrous iron. Laboratory analyses were performed on five wells (MW-104A, MW-205, MW-503B, MW-605, and MW-606) that were previously selected for the evaluation of biodegradation potential based on their location. Details of the biodegradation study design, including the well selection process, are provided in the *2004 Semi-Annual Groundwater Monitoring Report* (Haley & Aldrich, 2004).

#### 2.3.5.1 Field Parameters

Field parameters (pH, DO, and ORP) were measured using a Horiba U-22 water quality meter. The probes were inserted into a grab water sample collected from a vacuum truck during purging. It is important to note that the vacuum stinger method used to purge the wells may introduce more oxygen into the water. Therefore recorded data for DO may overestimate the oxygen content.

pH - This parameter is a measurement of the acidity or alkalinity of a solution and ranged between 7.31 and 8.09 in the 25 wells measured. This indicates a neutral to slightly alkaline environment that is suitable for the growth of alkalophilic bacteria and microorganisms that thrive at a neutral pH.

Dissolved Oxygen (DO) - This parameter is the preferred electron acceptor in the biodegradation of petroleum hydrocarbons. When aerobic biodegradation occurs, DO concentrations are expected to decline as microorganism exhaust the electron acceptor during aerobic respiration. The DO concentrations varied between 2.66 mg/L to 8.37 mg/L, reflecting an aerobic environment. However, purging the wells prior to sampling might have significantly contributed to the observed DO levels.

Oxidation Reduction Potential (ORP) - This parameter is a measure of electron activity which reflects the oxidizing or reducing nature of the environment. The ORP values are generally negative under reducing conditions (gaining electrons) and positive under oxidizing conditions (losing electrons). Anaerobic biodegradation has a tendency to create reducing conditions resulting in negative ORP readings. Negative ORP readings were observed in 12 wells (EW-1, MW-101, MW-105, MW-107A, MW-203, MW-501A, MW-502, MW-503B, W-1, W-3A, W-4, and W-10) ranging between -18 millivolts (mV) and -321 mV. Anaerobic conditions were evident in MW-107A and EW-1 as a hydrogen sulfide odor produced from the reduction of sulfate in groundwater, was detected during well purging.

#### 2.3.5.2 *Laboratory Parameters*

The laboratory parameters of interest for the Site are total alkalinity, nitrate, ferrous iron, sulfate, and methane.

Total alkalinity results from the presence of hydroxides, carbonates, and bicarbonates. Aerobic biodegradation in groundwater may result in increased alkalinity due to the evolution of carbon dioxide. Total alkalinity of groundwater was similar to that observed in the 2007 first quarter sampling round and varied between 360 mg/L and

810 mg/L. The highest alkalinity level was observed in well MW-104A, increasing from 500 mg/L in February 2007 to 810 mg/L.

Nitrate ( $\text{NO}_3^-$ ) may be used as an electron acceptor in anoxic environments where the dissolved oxygen has been depleted. During this biodegradative process, nitrate loses an oxygen atom and is reduced to nitrite ( $\text{NO}_2^-$ ). The decreased levels of dissolved nitrate in wells containing higher concentrations of hydrocarbons generally indicate the occurrence of denitrification. Nitrate was detected in two of the five wells at concentrations of 5.5 mg/L (MW-605) and 8.1 mg/L (MW-606). Nitrate concentration in MW-104A decreased from 1.2 mg/L in the previous monitoring event to below the 0.11 mg/L detection limit.

Ferric iron ( $\text{Fe}^{+3}$ ) may be used as an electron acceptor during anaerobic degradation of petroleum hydrocarbons where it is reduced to ferrous iron ( $\text{Fe}^{+2}$ ). Unlike during the first quarter sampling round when it was below the detection limit (0.1 mg/L) in all of the sampled wells, ferrous iron was observed in three monitoring wells (0.1 mg/L in MW-104A and 0.2 mg/L in both MW-205 and MW-503B).

Sulfate may also be used as an electron acceptor for anaerobic biodegradation once dissolved oxygen and nitrate are exhausted. A drop in sulfate concentrations in wells with high concentrations of petroleum hydrocarbons indicates the occurrence of anaerobic biodegradation. Sulfate was detected in all five wells at concentrations ranging between 30 mg/L in MW-104A and 430 mg/L in MW-205, similar to what was observed in the previous sampling events.

Methane is a dissolved gas and a byproduct of methanogenic reducing activity which is indicative of anaerobic biodegradation. Methane is typically produced once the electron acceptors oxygen, sulfate and nitrate have been completely utilized. Therefore, as methane concentrations increase, dissolved oxygen, sulfate and nitrate concentrations typically decrease. Methane was detected at a concentration of 0.25 mg/L in two (MW-205 and MW-503B) of the five sampled wells. The methane decreasing trend continued in 2007 second quarter with concentrations declining in MW-503B from 0.62 mg/L, observed in the previous monitoring event. Methane slightly increased in MW-205 from the 0.22 mg/L concentration measured in February.

### 2.3.6 Analysis of Biodegradation Results

Biodegradation of TPH-g compounds most commonly occurs by aerobic, nitrate-reducing,  $\text{Fe}^{+3}$ -reducing, sulfate-reducing, or methanogenic respiration. The TPH-g (and BTEX) serve as electron donors for the microbial metabolism in aerobic biodegradation. Electron acceptors include oxygen, nitrate,  $\text{Fe}^{+3}$ , sulfate, and carbon dioxide. In general, if sufficient oxygen is present, aerobic biodegradation will occur first. When the dissolved oxygen concentrations fall below approximately 0.5 mg/L (an anoxic environment), denitrification will begin if nitrate is present. After most nitrate has been consumed,  $\text{Fe}^{+3}$ -reduction will begin if  $\text{Fe}^{+3}$  is present.  $\text{Fe}^{+3}$  concentrations will decrease, while  $\text{Fe}^{+2}$  concentrations increase. After most  $\text{Fe}^{+3}$  is consumed, sulfate-reduction will begin if sulfate is available. After most sulfate has been consumed, methanogenesis, which uses carbon dioxide as an electron acceptor, begins. During methanogenesis, methane concentrations increase (Department of the Navy, 1998).

Use of a vacuum truck during purging introduces air to the wells, rendering the DO measurements unreliable in confirming aerobic degradation as the dominant breakdown process of the contaminants. However, the oxidation-reduction potential of the wells can be used to assess the oxygen presence in the aquifer. Negative ORP values reflect anaerobic conditions while positive values indicate aerobic conditions. The most highly negative ORP values were observed in wells MW-107A (-321 mV), EW-1 (-294 mV), W-10 (-192 mV), W-3A (-171 mV), and MW-501A (-157 mV). The most highly positive ORP values were observed in wells MW-605 (217 mV), MW-104A (208 mV), MW-606 (192 mV), and MW-106A (146 mV).

Among the wells sampled for biodegradation indicator parameters, wells MW-605 and MW-606 contained detectable nitrate concentrations (5.5 mg/L and 8.1 mg/L, respectively), and hence may be available for denitrification. Ferrous iron was detected at low concentrations in three of the sampled wells, as a result  $\text{Fe}^{+3}$ -reduction may be occurring in these wells. All five sampled wells contained detectable sulfate concentrations, ranging from 30 mg/L (MW-104A) and 430 mg/L (MW-205), and therefore may be available for sulfate-reduction. The presence of methane in wells MW-205 and MW-503B indicates that methanogenesis may be occurring in these two wells. The high alkalinity observed in both wells supports that the environment is conducive to methanogenesis, and that prior to methanogenesis, aerobic degradation may have occurred. When TPH-g and components are broken down aerobically, carbon dioxide is released into the aqueous environment in the form of carbonates or bicarbonates, raising the alkalinity.

The results of the biodegradation indicator parameters indicate that biodegradation, whether aerobic or anaerobic, may be occurring in the wells mentioned above.

### 2.3.7 Quality Assurance/Quality Control (QA/QC)

Trip blanks assess potential sample contamination from transportation and storage of samples. One trip blank (provided by the laboratory) accompanied each daily groundwater sample shipment to the laboratory for a total of three trip blanks. The trip blanks were analyzed for VOCs and TPH-g. The trip blank data showed non-detectable levels for all constituents.

Duplicate samples, which assess the precision of the laboratory analysis, were collected from three wells (MW-105, MW-605, and W-10) during this groundwater sampling event. The duplicates followed the same analysis protocols as the primary samples. Duplicate sample results are shown on Tables 2 through 5, along with the primary sample results. The duplicate sample results show similar concentrations of the analytes as their respective primary samples, as would be expected.

Equipment blanks were not collected because dedicated stingers were used to purge the wells and new disposable bailers were used for sampling, therefore eliminating cross-contamination between wells during the purging and sampling process.

### **3. Passive Hydrocarbon Recovery Results**

The Peatwick™ passive hydrocarbon recovery system was installed in February 2007 in 4 groundwater monitoring wells that have contained measurable free product or sheen in the last few monitoring rounds: MW-600A located on the Metropolitan State Hospital property, EW-1 and W-3A on Walker property, and MW-504 on-site. The passive hydrocarbon recovery system consisted of a 5-foot, Schedule 20, slotted polyvinyl chloride (PVC) canister, which held a sock containing dehydrated peat moss. The canister and sock were suspended from the well cap and submerged within only the upper few inches of groundwater. A sock is placed within the canister for a period of 2 to 4 weeks (depending on hydrocarbon thickness/recovery). The dehydrated peat moss material has a hydrophobic, porous structure that has a high affinity for hydrocarbons. Hydrocarbons are absorbed by the peat moss by capillary action until the sock is saturated. The volume of FPPH recovered using these socks is difficult to estimate, due to the potential for water absorbance in addition to the hydrocarbons. The effectiveness of the passive hydrocarbon recovery system will be monitored by quarterly measurements of the change of FPPH thickness.

The peat sock in groundwater monitoring well MW-600A (contained 2.96 feet of FPPH during February 2007 sampling event) was replaced four times following initial installation and prior to the 2007 second quarter monitoring event as shown in Table 7. The FPPH thickness in this well was significantly diminished as a result of absorption by the Peatwick™ socks, decreasing to only 0.12 feet. A sheen was not observed in monitoring wells MW-504 and EW-1 during this sampling round, so the passive recovery system was removed. The peat sock was replaced in well W-3A during this monitoring event since a sheen was still present in this well. Table 7 summarizes the passive hydrocarbon recovery for the Site.

#### **4. Conclusions**

Groundwater monitoring was performed at the former CENCO refinery site in May 2007 as part of an ongoing groundwater monitoring plan intended to evaluate chemical impacts, contaminant sources, and overall groundwater quality at the site. This groundwater monitoring event included gauging 32 wells in the CENCO monitoring well network and analyzing VOCs, TPH-g, hexavalent chromium in 27 wells, and additional biodegradation parameters (methane, nitrate, sulfate, total alkalinity, ferrous iron, pH, DO, and ORP) for five of the 27 sampled wells.

A relatively steep groundwater gradient of approximately 0.01 ft/ft was observed for the recent groundwater monitoring event, which is consistent with historical gradient data for the site. Overall, groundwater levels have risen by an average of 0.63 feet since the last measurement, taken in February 2007.

Measurable FPPH was present in one well (MW-600A) and a sheen was observed in another well (W-3A) within the CENCO monitoring well network. The FPPH thickness in MW-600A decreased from 2.96 feet in February 2007 to only 0.12 feet during this monitoring event, mainly due to the application of Peatwick™ passive hydrocarbon recovery. FPPH observed in MW-600A may have originated from a source on the CENCO site, as proposed by Haley & Aldrich (2004). The thicknesses detected within this well does not necessarily reflect FPPH thickness in the surrounding aquifer as fluctuations in water level and permeability factors can influence FPPH accumulation in monitoring wells.

The Peatwick™ passive hydrocarbon recovery system was installed in February 2007 in 4 groundwater monitoring wells that historically have contained measurable free product or sheen: MW-600A located on the Metropolitan State Hospital property, EW-1 and W-3A on the former Walker property, and MW-504 onsite. The peat sock in groundwater monitoring well MW-600A was replaced four times following initial installation and prior to the 2007 second quarter monitoring event. As a result, the FPPH thickness in this well was significantly diminished, decreasing to only 0.12 feet. A sheen was no longer observed in monitoring wells MW-504 and EW-1 during this sampling round, therefore the passive recovery system was removed. The peat sock was replaced in well W-3A during this monitoring event since a sheen was still observed in this well.

Groundwater monitoring results at the site are generally consistent with historical observations and analyses. The number of wells in which FPPH was observed has decreased from six in June 2004, to four in October 2005, to two in February 2006, to only one well as of August 2006. TPH-g concentrations declined in 16 of the sampled wells, namely EW-1, MW-101, MW-103, MW-104A, MW-105, MW-106A, MW-201, MW-501A, MW-604, MW-607, W-4, W-8, W-9, W-10, W-11, and W-12. An increase in TPH-g was observed in wells MW-107A, MW-203, MW-205, MW-502, MW-503B, MW-504, W-1, and W-3A, with well W-3A having the most significant increase (by 12.6 mg/L). At the same time benzene levels decreased in wells EW-1, MW-101, MW-103, MW-106A, MW-107A, MW-201, MW-203, MW-205, MW-501A, MW-604, W-4, W-10, and W-11 and increased in four wells, namely MW-502, MW-503B, MW-504, and W-1.

The footprint of impacted groundwater coming from the southwest corner of the site has not changed shape or size substantially since the last groundwater monitoring event in February 2007. TPH-g concentrations increased in two of the Lakeland Property wells (MW-502 and MW-503B), two of the Bloomfield Property wells (MW-107A and MW-203), and two of the Walker Property wells (W-1 and W-3A). At the same time, an increase in benzene levels in monitoring wells W-1, MW-502, and MW-503B was also observed. The eastern edge of the plume showed a decrease in TPH-g in several wells (MW-106A, EW-1, W-4, and MW-607). The elevated TPH-g, benzene, toluene, ethylbenzene, and xylenes concentrations detected in well W-10 in the north-central portion of the site in February 2007 were also observed to decline during this monitoring event.

Hexavalent chromium was demonstrated to be below detection limits in all but one well, and in all cases below California MCLs during the May 2007 sampling event.

Intrinsic biodegradation continues to be viable, in at least some areas of the site, based on conditions measured in the subsurface. Nitrate, sulfate, ferrous iron, methane, alkalinity, and ORP indicate the potential for intrinsic biodegradation occurring in the vicinity of the site.

## 5. References

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**Tables**

**TABLE 1**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS**

**2007 SECOND QUARTER GROUNDWATER MONITORING REPORT**  
**ISOLA AND RUIZ, LLP**  
**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
EW-1	5/7/2007	112.28	97.88	NA	0	14.52	112.40
	2/5/2007	112.29	98.16	NA	0	14.24	112.40
MW-101	5/7/2007	90.30	87.63	NA	0	47.60	135.23
	2/5/2007	90.65	88.20	NA	0	47.03	135.23
MW-103	5/7/2007	94.81	92.29	NA	0	44.66	136.95
	2/5/2007	94.31	92.83	NA	0	44.12	136.95
MW-104A	5/7/2007	99.93	88.09	NA	0	55.30	143.39
	2/5/2007	100.20	88.35	NA	0	55.04	143.39
MW-105	5/7/2007	100.32	87.11	NA	0	51.52	138.63
	2/5/2007	99.22	87.66	NA	0	50.97	138.63
MW-106A	5/7/2007	110.21	95.51	NA	0	57.00	152.51
	2/5/2007	110.08	95.90	NA	0	56.61	152.51
MW-107A	5/7/2007	109.52	96.09	NA	0	50.62	146.71
	2/5/2007	109.69	96.41	NA	0	50.30	146.71
MW-201	5/7/2007	100.86	88.79	NA	0	44.12	132.91
	2/5/2007	100.95	89.34	NA	0	43.57	132.91
MW-202	5/7/2007	92.69	Dry	NA	0	Dry	137.89
	2/5/2007	92.68	Dry	NA	0	Dry	137.89
MW-203	5/7/2007	102.40	93.65	NA	0	49.78	143.43
	2/5/2007	102.43	93.84	NA	0	49.59	143.43
MW-204	5/7/2007	99.63	93.79	NA	0	48.39	142.18
	2/5/2007	99.69	94.32	NA	0	47.86	142.18
MW-205	5/7/2007	98.71	88.08	NA	0	49.96	138.04
	2/5/2007	98.31	88.52	NA	0	49.52	138.04
MW-501A	5/7/2007	93.21	90.39	NA	0	38.31	128.70
	2/5/2007	93.05	91.02	NA	0	37.68	128.70
MW-502	5/7/2007	100.68	90.15	NA	0	38.15	128.30
	2/5/2007	99.95	90.80	NA	0	37.50	128.30
MW-503B	5/7/2007	108.80	90.63	NA	0	39.33	129.96
	2/5/2007	108.79	91.28	NA	0	38.68	129.96
MW-504	5/7/2007	96.30	90.69	NA	0	43.82	134.51
	2/5/2007	95.81	91.26	NA	Sheen	43.25	134.51
MW-600A	5/7/2007	NM	85.61	85.49	0.12	34.83	120.34
	2/5/2007	NM	88.48	85.52	2.96	34.23	120.34
MW-601A	5/7/2007	89.66	Dry	NA	0	Dry	126.53
	2/5/2007	89.66	Dry	NA	0	Dry	126.53

**TABLE 1**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS**

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**ISOLA AND RUIZ, LLP**  
**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-603	5/7/2007	97.68	84.24	NA	0	34.30	118.54
	2/5/2007	97.85	85.01	NA	0	33.53	118.54
MW-604	5/7/2007	103.20	101.28	NA	0	36.88	138.16
	2/5/2007	103.16	101.91	NA	0	36.25	138.16
MW-605	5/7/2007	92.90	85.54	NA	0	29.00	114.54
	2/5/2007	93.96	86.32	NA	0	28.22	114.54
MW-606	5/7/2007	99.19	88.40	NA	0	25.49	113.89
	2/5/2007	99.21	89.30	NA	0	24.59	113.89
MW-607	5/7/2007	106.87	99.61	NA	0	26.42	126.03
	2/5/2007	106.19	100.57	NA	0	25.46	126.03
W-1	5/7/2007	129.64	100.11	NA	0	42.78	142.89
	2/5/2007	129.75	100.66	NA	0	42.23	142.89
W-3A*	5/7/2007	110.43	100.04	NA	Sheen	23.96	124.00
	2/5/2007	110.40	100.62	NA	0	23.38	124.00
W-4	5/7/2007	129.62	101.36	NA	0	41.02	142.38
	2/5/2007	129.09	101.82	NA	0	40.56	142.38
W-7**	5/7/2007	NM	82.85	NA	0	NA	NM
	2/5/2007	NM	82.98	NA	0	NA	NM
W-8**	5/7/2007	NM	62.96	NA	0	NA	NM
	2/5/2007	NM	64.04	NA	0	NA	NM
W-9	5/7/2007	110.07	84.35	NA	0	54.77	139.12
	2/5/2007	110.19	84.65	NA	0	54.47	139.12
W-10	5/7/2007	109.82	87.60	NA	0	52.39	139.99
	2/5/2007	110.33	88.16	NA	0	51.83	139.99
W-11	5/7/2007	112.30	90.60	NA	0	50.69	141.29
	2/5/2007	112.83	91.24	NA	0	50.05	141.29
W-12	5/7/2007	115.90	93.44	NA	0	50.98	144.42
	2/5/2007	116.09	93.93	NA	0	50.49	144.42

**Notes:**

Groundwater elevation = (top of casing elevation - depth to water) + (0.8 x hydrocarbon thickness).

Groundwater elevation correction for the presence of free product was performed assuming a specific gravity of 0.8 for the petroleum product.

NA- Not applicable.

NM- Not measured.

msl- Mean sea level.

\* Sheen developed during sampling of monitoring well W-3A.

\*\* Former production wells W-7 and W-8 were never surveyed and are not used in calculating groundwater gradients (screened in a deeper aquifer).

**TABLE 2**  
**SUMMARY OF TPH-g IN GROUNDWATER**

**2007 SECOND QUARTER GROUNDWATER MONITORING REPORT**  
**ISOLA AND RUIZ, LLP**  
**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Sample ID	Date	TPH-g (milligrams per liter [mg/L])
EW-1	EW-1-0507	5/10/2007	3.3
MW-101	MW-101-0507	5/11/2007	1.1
MW-103	MW-103-0507	5/9/2007	0.22
MW-104A	MW-104A-0507	5/8/2007	0.033 J
MW-105	MW-105-0507	5/9/2007	0.15
	MW-105-0507-D	5/9/2007	0.19
MW-106A	MW-106A-0507	5/10/2007	0.21
MW-107A	MW-107A-0507	5/10/2007	0.67
MW-201	MW-201-0507	5/9/2007	0.83
MW-203	MW-203-0507	5/10/2007	0.17
MW-205	MW-205-0507	5/9/2007	0.19
MW-501A	MW-501A-0507	5/11/2007	9.1
MW-502	MW-502-0507	5/11/2007	25
MW-503B	MW-503B-0507	5/11/2007	1.8
MW-504	MW-504-0507	5/11/2007	13
MW-604	MW-604-0507	5/8/2007	0.48
MW-605	MW-605-0507	5/8/2007	0.035 J
	MW-605-0507-D	5/8/2007	0.038 J
MW-606	MW-606-0507	5/8/2007	ND<0.05
MW-607	MW-607-0507	5/8/2007	0.33
W-1	W-1-0507	5/10/2007	0.89
W-3A	W-3A-0507	5/10/2007	14
W-4	W-4-0507	5/10/2007	0.17
W-7	W-7-0507	5/8/2007	0.031 J
W-8	W-8-0507	5/8/2007	0.11
W-9	W-9-0507	5/9/2007	0.05
W-10	W-10-0507	5/11/2007	7.9
	W-10-0507-D	5/11/2007	7.8
W-11	W-11-0507	5/9/2007	0.54
W-12	W-12-0507	5/9/2007	0.22

**Notes:**

Total petroleum hydrocarbons as gasoline (TPH-g) were analyzed using EPA Method 8015M/DHS LUFT.

ND< - Not detected at the indicated reporting limit.

J - Analyte estimated concentration below reporting limit.

No California Department of Health Services maximum contaminant level exists for TPH-g.

**TABLE 3**  
**SUMMARY OF VOCs AND OXYGENATES IN GROUNDWATER**  
**2007 SECOND QUARTER GROUNDWATER MONITORING REPORT**  
**ISOLA AND RUIZ, LLP**  
**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID		EW-1	MW-101	MW-103	MW-104A	MW-105		MW-106A	MW-107A	MW-201	MW-203	MW-205	MW-501A	MW-502	MW-503B	
	Sample ID:	EW-1-0507	MW-101-0507	MW-103-0507	MW-104A-0507	MW-105-0507	MW-105-0507-D	MW-106A-0507	MW-107A-0507	MW-201-0507	MW-203-0507	MW-205-0507	MW-501A-0507	MW-502-0507	MW-503B-0507	
	Date:	5/10/2007	5/11/2007	5/9/2007	5/8/2007	5/9/2007	5/9/2007	5/10/2007	5/10/2007	5/9/2007	5/10/2007	5/9/2007	5/11/2007	5/11/2007	5/11/2007	
Analyte	California MCL ( $\mu\text{g/L}$ )	Concentration ( $\mu\text{g/L}$ )														
Benzene	1	19	29	0.51 J	ND<2	ND<2	ND<2	1.5 J	42	47	1 J	7.4	2000	4000	60	
n-Butylbenzene	NA	12	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	0.87 J	ND<5	ND<5	ND<5	22 J	ND<500	ND<5	
sec-Butylbenzene	NA	25	1.2 J	1.9 J	ND<5	ND<5	ND<5	1.4 J	2.7 J	0.69 J	ND<5	ND<5	16 J	ND<500	18	
tert-Butylbenzene	NA	3.9 J	ND<5	0.39 J	ND<5	ND<5	ND<5	0.73 J	0.39 J	ND<5	ND<5	ND<5	ND<250	ND<500	2.2 J	
Chlorobenzene	70	ND<4	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<100	ND<200	ND<2	
Chloroethane	NA	ND<10	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<250	ND<500	ND<5	
Chloroform	NA	ND<4	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<100	ND<200	ND<2	
Chloromethane	NA	ND<10	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	2.5 J	ND<5	ND<5	ND<5	ND<250	ND<500	ND<5	
1,4-Dichlorobenzene	5	ND<4	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<100	ND<200	ND<2	
1,1-Dichloroethane	5	ND<4	1.5 J	ND<2	ND<2	2.6	2.6	0.60 J	ND<2	0.4 J	0.75 J	ND<2	ND<100	ND<200	0.63 J	
1,2-Dichloroethane	0.5	ND<4	0.39 J	0.32 J	ND<2	0.31 J	0.34 J	ND<2	ND<2	0.83 J	ND<2	0.54 J	ND<100	ND<200	0.47 J	
1,1-Dichloroethene	6	ND<10	9.2	ND<5	ND<5	5.9	6	ND<5	ND<5	3.1 J	ND<5	0.95 J	ND<250	ND<500	0.87 J	
c-1,2-Dichloroethene	6	6.9	26	0.93 J	1.8 J	7.5	7.5	9.9	6.6	38	14	40	ND<100	ND<200	17	
t-1,2-Dichloroethene	10	6.9	2.6	ND<2	ND<2	2.7	2.8	12	6	ND<2	2.8	0.85 J	ND<100	ND<200	2.6	
1,2-Dichloropropane	5	ND<4	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<100	ND<200	ND<2	
Ethylbenzene	300	15	1 J	ND<2	ND<2	ND<2	ND<2	0.28 J	14	4	ND<2	84 J	500	2.1		
Isopropylbenzene	NA	130	1.4 J	2.6	ND<2	ND<2	ND<2	6.5	20	2.7	ND<2	ND<2	130	63 J	40	
p-Isopropyltoluene	NA	1.5 J	ND<2	ND<2	ND<2	ND<2	ND<2	0.44 J	ND<2	0.34 J	ND<2	ND<2	ND<100	ND<200	ND<2	
Methylene Chloride	5	ND<10	ND<5	1.5 J	ND<5	1.7 J	1.8 J	ND<5	ND<5	1.7 J	ND<5	1.6 J	ND<250	ND<500	ND<5	
Naphthalene	NA	10	0.76 J	ND<5	ND<5	ND<5	ND<5	ND<5	6	ND<5	ND<5	ND<5	ND<250	170 J	1.5 J	
n-Propylbenzene	NA	110	0.46 J	2.4	ND<2	ND<2	ND<2	1.7 J	15	1.3 J	ND<2	ND<2	250	65 J	ND<2	
Tetrachloroethene	5	ND<4	0.37 J	ND<2	ND<2	12	12	ND<2	ND<2	ND<2	ND<2	ND<2	ND<100	ND<200	ND<2	
Toluene	150	1.5 J	0.47 J	ND<2	0.37 J	ND<2	ND<2	ND<2	1 J	0.75 J	ND<2	ND<2	ND<100	59 J	0.58 J	
1,1,2-Trichloroethane	5	ND<4	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<100	ND<200	ND<2	
Trichloroethene	5	0.92 J	37	ND<2	0.39 J	36	36	0.28 J	3.5	8.5	ND<2	ND<2	ND<100	ND<200	ND<2	
Trichlorofluoromethane	150	ND<10	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<250	ND<500	ND<5	
1,2,4-Trimethylbenzene	NA	2.6 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<100	400	ND<2	
1,3,5-Trimethylbenzene	NA	1.4 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	24 J	250	0.61 J
Vinyl Chloride	0.5	ND<10	0.82 J	ND<5	ND<5	0.59 J	0.57 J	7.9	2 J	0.67 J	7.8	0.41 J	ND<250	ND<500	7.4	
p/m-Xylene	1750	3.7 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	17	2.6	ND<2	ND<2	ND<100	720	1 J	
o-Xylene	1750	ND<8	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<100	ND<200	ND<2	
Total Xylenes	1750	4.1 J	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	17	2.8	ND<4	ND<4	ND<200	720	1.3 J
Di-Isopropyl Ether (DIPE)	NA	ND<10	0.3 J	ND<5	ND<5	0.77 J	0.78 J	0.36 J	ND<5	ND<5	0.41 J	ND<5	ND<250	ND<500	ND<5	
Methyl-t-Butyl Ether (MTBE)	5	ND<10	ND<5	12	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	640	29000	1.3 J
Tert-Butyl Alcohol (TBA)	NA	17 J	ND<50	85	340	ND<50	ND<50	20 J	21 J	ND<50	28 J	ND<50	ND<2500	ND<5000	ND<50	

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	Well ID	MW-504	MW-604	MW-605		MW-606	MW-607	W-1	W-3A	W-4	W-7	W-8	W-9	W-10		W-11	W-12		
	Sample ID:	MW-504-0507	MW-604-0507	MW-605-0507	MW-605-0507-D	MW-606-0507	MW-607-0507	W-1-0507	W-3A-0507	W-4-0507	W-7-0507	W-8-0507	W-9-0507	W-10-0507	W-10-0507-D	W-11-0507	W-12-0507		
Date:	5/11/2007	5/8/2007	5/8/2007	5/8/2007	5/8/2007	5/8/2007	5/10/2007	5/10/2007	5/10/2007	5/10/2007	5/8/2007	5/8/2007	5/9/2007	5/11/2007	5/9/2007	5/9/2007			
Analyte	California MCL ( $\mu\text{g/L}$ )	Concentration ( $\mu\text{g/L}$ )																	
Benzene	1	1500	4.4	ND<2	ND<2	ND<2	ND<2	110	0.66 J	1.5 J	0.41 J	0.49 J	ND<2	430	500	45	ND<2		
n-Butylbenzene	NA	ND<100	1.2 J	ND<5	ND<5	ND<5	ND<5	1.4 J	8.6	0.43 J	ND<5	ND<5	ND<5	8.4 J	ND<25	ND<5	ND<5		
sec-Butylbenzene	NA	10 J	2.7 J	ND<5	ND<5	ND<5	ND<5	1.4 J	3.4 J	6.1	1.3 J	ND<5	ND<5	ND<5	5.4 J	5.8 J	0.52 J	0.61 J	
tert-Butyl Benzene	NA	ND<100	0.86 J	ND<5	ND<5	ND<5	ND<5	0.35 J	0.58 J	1.4 J	0.49 J	ND<5	ND<5	ND<5	0.68 J	ND<25	ND<5	ND<5	
Chlorobenzene	70	ND<40	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<4	ND<10	ND<2	ND<2	ND<2		
Chloroethane	NA	ND<100	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	2 J	ND<25	ND<5	ND<5		
Chloroform	NA	ND<40	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<4	ND<10	ND<2	ND<2		
Chloromethane	NA	ND<100	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<25	ND<5	ND<5		
1,4-Dichlorobenzene	5	ND<40	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<4	ND<10	ND<2	ND<2	ND<2		
1,1-Dichloroethane	5	ND<40	ND<2	0.68 J	0.74 J	ND<2	ND<2	ND<2	ND<2	ND<2	0.41 J	ND<2	ND<2	8.2	8.8 J	ND<2	ND<2		
1,2-Dichloroethane	0.5	ND<40	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	1.2 J	1.4 J	ND<2	0.37 J		
1,1-Dichloroethene	6	ND<100	ND<5	3.7 J	3.6 J	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<25	ND<5	ND<5		
c-1,2-Dichloroethene	6	ND<40	ND<2	1.6 J	1.6 J	ND<2	ND<2	ND<2	ND<2	ND<2	3.8	ND<2	ND<2	2	6	6.6 J	18	4.3	
t-1,2-Dichloroethene	10	ND<40	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<4	ND<10	0.41 J	0.31 J			
1,2-Dichloropropane	5	ND<40	ND<2	0.70 J	0.61 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	18	20	ND<2	ND<2		
Ethylbenzene	300	230	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	0.87 J	0.33 J	ND<2	100	110	19	ND<2		
Isopropylbenzene	NA	66	13	ND<2	ND<2	ND<2	ND<2	3.2	21	12	5.2	ND<2	ND<2	ND<2	19	21	4	ND<2	
p-Isopropyltoluene	NA	18 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	1.1 J	ND<2	ND<2	ND<2	ND<2	4.6	5 J	ND<2	ND<2		
Methylene Chloride	5	ND<100	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	1.9 J	ND<10	ND<25	2.6 J	1.7 J	
Naphthalene	NA	80 J	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	1 J	16	ND<5	0.90 J	ND<5	ND<5	100	150	0.68 J	ND<5	
n-Propylbenzene	NA	59	7.4	ND<2	ND<2	ND<2	ND<2	1.9	16	15	3.9	ND<2	ND<2	ND<2	30	33	3.5	ND<2	
Tetrachloroethene	5	ND<40	ND<2	40	45	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<4	ND<10	ND<2	ND<2		
Toluene	150	7.2 J	0.38 J	ND<2	ND<2	ND<2	ND<2	0.57 J	ND<2	ND<2	0.45 J	0.73 J	ND<2	140	160	1.6 J	ND<2		
1,1,2-Trichloroethane	5	ND<40	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<4	ND<10	ND<2	ND<2	ND<2		
Trichloroethene	5	ND<40	ND<2	33	35	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<4	ND<10	ND<2	ND<2		
Trichlorofluoromethane	150	ND<100	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	3.5 J	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<25	ND<5	ND<5	
1,2,4-Trimethylbenzene	NA	130	0.48 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	2.3	ND<2	1.4 J	0.23 J	ND<2	130	150	9	ND<2
1,3,5-Trimethylbenzene	NA	110	0.26 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	3.6	ND<2	0.35 J	ND<2	ND<2	48	53	4.4	ND<2
Vinyl Chloride	0.5	ND<100	0.87 J	ND<5	ND<5	ND<5	ND<5	1.8 J	ND<5	1 J	ND<5	ND<5	ND<5	3.6 J	3.9 J	0.96 J	1.1 J		
p/m-Xylene	1750	390	0.81 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	1.4 J	ND<2	ND<2	480	540	47	ND<2		
o-Xylene	1750	11 J	0.48 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	0.75 J	ND<2	ND<2	130	150	3.1	ND<2		
Total Xylenes	1750	400	1.3 J	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	2.2 J	ND<4	610	700	51	ND<4
Di-Isopropyl Ether (DIPE)	NA	ND<100	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<25	ND<5	ND<5		
Methyl-t-Butyl Ether (MTBE)	5	ND<100	18	ND<5	ND<5	ND<5	ND<5	2.3 J	28	7.8	1.6 J	ND<5	ND<5	ND<5	ND<10	ND<25	ND<5	ND<5	
Tert-Butyl Alcohol (TBA)	NA	ND<1000	57	ND<50	ND<50	ND<50	ND<50	110	43 J	23 J	30 J	ND<50	ND<50	17 J	84 J	85 J			

**TABLE 4**  
**SUMMARY OF HEXAVALENT CHROMIUM IN GROUNDWATER**

**2007 SECOND QUARTER GROUNDWATER MONITORING REPORT**  
**ISOLA AND RUIZ, LLP**  
**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Sample ID	Sample Date	Hexavalent Chromium (milligrams per liter [mg/L])
EW-1	EW-1-0507	5/10/2007	ND<0.002
MW-101	MW-101-0507	5/11/2007	ND<0.002
MW-103	MW-103-0507	5/9/2007	ND<0.002
MW-104A	MW-104A-0507	5/8/2007	ND<0.002
MW-105	MW-105-0507	5/9/2007	ND<0.002
	MW-105-0507-D	5/9/2007	ND<0.002
MW-106A	MW-106A-0507	5/10/2007	ND<0.002
MW-107A	MW-107A-0507	5/10/2007	ND<0.002
MW-201	MW-201-0507	5/9/2007	ND<0.002
MW-203	MW-203-0507	5/10/2007	ND<0.002
MW-205	MW-205-0507	5/9/2007	ND<0.002
MW-501A	MW-501A-0507	5/11/2007	ND<0.002
MW-502	MW-502-0507	5/11/2007	ND<0.002
MW-503B	MW-503B-0507	5/11/2007	ND<0.002
MW-504	MW-504-0507	5/11/2007	ND<0.002
MW-604	MW-604-0507	5/8/2007	ND<0.002
MW-605	MW-605-0507	5/8/2007	ND<0.002
	MW-605-0507-D	5/8/2007	ND<0.002
MW-606	MW-606-0507	5/8/2007	<b>0.0036</b>
MW-607	MW-607-0507	5/8/2007	ND<0.002
W-1	W-1-0507	5/10/2007	ND<0.002
W-3A	W-3A-0507	5/10/2007	ND<0.002
W-4	W-4-0507	5/10/2007	ND<0.002
W-7	W-7-0507	5/8/2007	ND<0.002
W-8	W-8-0507	5/8/2007	ND<0.002
W-9	W-9-0507	5/9/2007	ND<0.002
W-10	W-10-0507	5/11/2007	ND<0.002
	W-10-0507-D	5/11/2007	ND<0.002
W-11	W-11-0507	5/9/2007	ND<0.002
W-12	W-12-0507	5/9/2007	ND<0.002

**Notes:**

Hexavalent chromium was analyzed using EPA Method 7199.

ND< - Not detected at the indicated reporting limit.

Bold indicates detected value.

**TABLE 5**  
**SUMMARY OF BIODEGRADATION PARAMETER RESULTS IN GROUNDWATER**

**2007 SECOND QUARTER GROUNDWATER MONITORING REPORT**  
**ISOLA AND RUIZ, LLP**  
**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Sample ID	Sample Date	Laboratory Analytical Methods					Field Test Methods		
			Methane (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Total Alkalinity (mg/L)	Ferrous Iron (mg/L)	pH	DO (mg/L)	ORP (mV)
EW-1	EW-1-0507	5/10/2007	NA	NA	NA	NA	NA	7.99	2.71	-294
MW-101	MW-101-0507	5/11/2007	NA	NA	NA	NA	NA	7.78	8.37	-49
MW-103	MW-103-0507	5/9/2007	NA	NA	NA	NA	NA	7.75	4.39	121
MW-104A	MW-104A-0507	5/8/2007	ND<0.05	ND<0.11	30	810	0.1	7.76	4.63	208
MW-105	MW-105-0507	5/9/2007	NA	NA	NA	NA	NA	7.70	4.96	-69
MW-106A	MW-106A-0507	5/10/2007	NA	NA	NA	NA	NA	7.77	5.09	146
MW-107A	MW-107A-0507	5/10/2007	NA	NA	NA	NA	NA	7.91	7.23	-321
MW-201	MW-201-0507	5/9/2007	NA	NA	NA	NA	NA	7.60	6.32	128
MW-203	MW-203-0507	5/10/2007	NA	NA	NA	NA	NA	7.75	6.29	-23
MW-205	MW-205-0507	5/9/2007	0.25	ND<0.11	430	540	0.2	7.69	5.96	78
MW-501A	MW-501A-0507	5/11/2007	NA	NA	NA	NA	NA	7.41	3.65	-157
MW-502	MW-502-0507	5/11/2007	NA	NA	NA	NA	NA	7.58	5.42	-18
MW-503B	MW-503B-0507	5/11/2007	0.25	ND<0.11	170	660	0.2	7.87	5.51	-101
MW-504	MW-504-0507	5/11/2007	NA	NA	NA	NA	NA	7.92	5.44	82
MW-604	MW-604-0507	5/8/2007	NA	NA	NA	NA	NA	7.45	2.66	9
MW-605	MW-605-0507	5/8/2007	ND<0.05	5.5	220	430	ND<0.1	8.02	4.31	217
MW-605	MW-605-0507-D	5/8/2007	ND<0.05	5.5	220	440	ND<0.1			
MW-606	MW-606-0507	5/8/2007	ND<0.05	8.1	260	360	ND<0.1	8.09	4.79	192
MW-607	MW-607-0507	5/8/2007	NA	NA	NA	NA	NA	7.96	4.76	113
W-1	W-1-0507	5/10/2007	NA	NA	NA	NA	NA	7.63	3.86	-65
W-3A	W-3A-0507	5/10/2007	NA	NA	NA	NA	NA	7.31	5.59	-171
W-4	W-4-0507	5/10/2007	NA	NA	NA	NA	NA	7.70	6.29	-22
W-9	W-9-0507	5/9/2007	NA	NA	NA	NA	NA	7.75	4.13	132
W-10	W-10-0507	5/11/2007	NA	NA	NA	NA	NA	7.58	5.74	-192
W-11	W-11-0507	5/9/2007	NA	NA	NA	NA	NA	7.57	5.00	93
W-12	W-12-0507	5/9/2007	NA	NA	NA	NA	NA	7.74	5.96	76

**Notes**

Methane was analyzed using Method RSK-175M.  
 Nitrate (as N) was analyzed using EPA Method 300.0.  
 Sulfate was analyzed using EPA Method 300.0.  
 Total alkalinity (as CaCO<sub>3</sub>) was analyzed using Method SM 2320B.  
 Ferrous iron (Iron II) was analyzed using Method SM 3500-FeD.  
 DO - Dissolved oxygen.  
 ORP- Oxidation/reduction potential.  
 mg/L - Milligrams per Liter.  
 mV - Millivolts.  
 ND - Not detected at the indicated reporting limit.  
 NA - Not analyzed.  
 NM - Not measured.  
 Bold indicates detected value.

TABLE 6  
COMPARISON OF FEBRUARY 2007 AND MAY 2007 GROUNDWATER MONITORING DATA

2007 SECOND QUARTER GROUNDWATER MONITORING REPORT  
ISOLA AND RUIZ, LLP  
FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPH-g (mg/L)		Benzene (µg/L)		Toluene (µg/L)		Ethylbenzene (µg/L)		p/m-Xylene (µg/L)		o-Xylene (µg/L)	
		Feb-2007	May-2007	Feb-2007	May-2007	Feb-2007	May-2007	Feb-2007	May-2007	Feb-2007	May-2007	Feb-2007	May-2007
EW-1	5/10/2007	4.1	3.3	41	19	ND<2	1.5 J	39	15	9.4	3.7 J	ND<2	ND<8
MW-101	5/11/2007	2.1	1.1	240	29	ND<8	0.47 J	ND<8	1 J	ND<8	ND<2	ND<8	ND<2
MW-103	5/9/2007	0.36	0.22	36	0.51 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2
MW-104A	5/8/2007	0.54	0.033 J	ND<2	ND<2	ND<2	0.37 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2
MW-105	5/9/2007	0.16	0.15	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2
MW-106A	5/10/2007	0.27	0.21	2.6	1.5 J	ND<2	ND<2	ND<2	0.28 J	ND<2	ND<2	ND<2	ND<2
MW-107A	5/10/2007	0.5	0.67	80	42	ND<2	1 J	21	14	25	17	ND<2	ND<2
MW-201	5/9/2007	1.1	0.83	94	47	ND<2	0.75 J	8.6	4	5.1	2.6	ND<2	ND<2
MW-203	5/10/2007	0.15	0.17	2	1 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2
MW-205	5/9/2007	0.15	0.19	24	7.4	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2
MW-501A	5/11/2007	13	9.1	3800	2000	ND<40	ND<100	130	84 J	ND<40	ND<100	ND<40	ND<100
MW-502	5/11/2007	15	25	2200	4000	ND<400	59 J	500	500	560	720	ND<400	ND<200
MW-503B	5/11/2007	1.6	1.8	59	60	ND<2	0.58 J	ND<2	2.1	ND<2	1 J	ND<2	ND<2
MW-504	5/11/2007	6.1	13	140	1500	ND<2	7.2 J	13	230	120	390	8.5	11 J
MW-604	5/8/2007	0.54	0.48	9.8	4.4	ND<2	0.38 J	ND<2	ND<2	ND<2	0.81 J	ND<2	0.48 J
MW-605	5/8/2007	ND<0.050	0.035 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2
MW-606	5/8/2007	ND<0.050	ND<0.05	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2
MW-607	5/8/2007	0.59	0.33	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2
W-1	5/10/2007	0.5	0.89	77	110	ND<2	0.57 J	ND<2	0.61 J	ND<2	ND<2	ND<2	0.32 J
W-3A	5/10/2007	1.4	14	ND<2	0.66 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2
W-4	5/10/2007	0.2	0.17	3.1	1.5 J	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2
W-7	5/8/2007	ND<0.050	0.031 J	ND<2	0.41 J	ND<2	0.45 J	ND<2	0.87 J	2.6	1.4 J	ND<2	0.75 J
W-8	5/8/2007	0.13	0.11	ND<2	0.49 J	ND<2	0.73 J	ND<2	0.33 J	ND<2	ND<2	ND<2	ND<2
W-9	5/9/2007	0.067	0.05	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2
W-10	5/11/2007	28	7.9	6400	430	2200	140	520	100	2200	480	710	130
W-11	5/9/2007	8	0.54	95	45	14	1.6 J	78	19	280	47	27	3.1
W-12	5/9/2007	4.8	0.22	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2	ND<2

**Notes:**

mg/L - Milligrams per liter.

µg/L - Micrograms per liter.

NS- Not sampled.

ND<- Not detected at the indicated reporting limit.

J - Analyte estimated concentration below reporting limit.

Maximum concentrations from duplicate samples from August and November 2006 sampling event are shown.

Bold indicates detected value.

**TABLE 7**  
**PASSIVE HYDROCARBON RECOVERY SUMMARY**

**2007 SECOND QUARTER GROUNDWATER MONITORING REPORT**  
**ISOLA AND RUIZ, LLP**  
**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Absorbent Sock Replacement Date	Top of Casing Elevation (feet-msl)	Depth to Water (feet)	Depth to FPPH (feet)	Corrected Groundwater Elevation (feet-msl)	FPPH Thickness (feet)	Change in FPPH Thickness Q1 2007 - Q2 2007 (feet)	Comments
<b>Initial Absorbent Canister Installation</b>								
MW-600A	2/6/2007	120.34	88.48	85.52	34.23	2.96	NA	Total length of rope and canister = 88.5 feet
EW-1	2/15/2007	112.40	98.18	98.18	14.22	Sheen	NA	Total length of rope and canister = 98.2 feet
W-3A	2/15/2007	124.00	100.66	100.66	23.34	Sheen	NA	Total length of rope and canister = 100.7 feet
MW-504	2/15/2007	134.51	91.32	91.32	43.19	Sheen	NA	Total length of rope and canister = 91.3 feet
<b>Absorbent Sock Replacements</b>								
MW-600A	2/6/2007	120.34	NM	NM	NM	NM	NM <sup>1</sup>	Replaced ~ 5 hours after initial installation
	2/20/2007		NM	NM	NM	NM	NM <sup>1</sup>	
	3/20/2007		NM	NM	NM	NM	NM <sup>1</sup>	
	4/13/2007		NM	NM	NM	NM	NM <sup>1</sup>	
	5/7/2007		85.61	85.49	34.83	0.12	2.84	Canister removed for GW monitoring, then replaced
EW-1	3/19/2007	112.40	NM	NM	NM	NM	NM <sup>1</sup>	
	4/13/2007		NM	NM	NM	NM	NM <sup>1</sup>	
	5/7/2007		97.88	97.88	14.52	NA <sup>2</sup>	NA	Canister removed following GW monitoring (no FPPH)
W-3A	3/19/2007	124.00	NM	NM	NM	NM	NM <sup>1</sup>	
	4/13/2007		NM	NM	NM	NM	NM <sup>1</sup>	
	5/7/2007		100.04	100.04	23.96	Sheen	NA	Canister removed for GW monitoring, then replaced
MW-504	3/19/2007	134.51	NM	NM	NM	NM	NM <sup>1</sup>	
	4/13/2007		NM	NM	NM	NM	NM <sup>1</sup>	
	5/7/2007		90.69	90.69	43.82	NA <sup>2</sup>	NA	Canister removed following GW monitoring (no FPPH)

**Notes**

FPPH - Free phase petroleum hydrocarbons.

Depth to groundwater measured on a quarterly basis.

Groundwater elevation = (top of casing elevation - depth to water) + (0.8 x hydrocarbon thickness).

Groundwater elevation correction for the presence of free product was performed assuming a specific gravity of 0.8 for the petroleum product.

NM - Not measured.

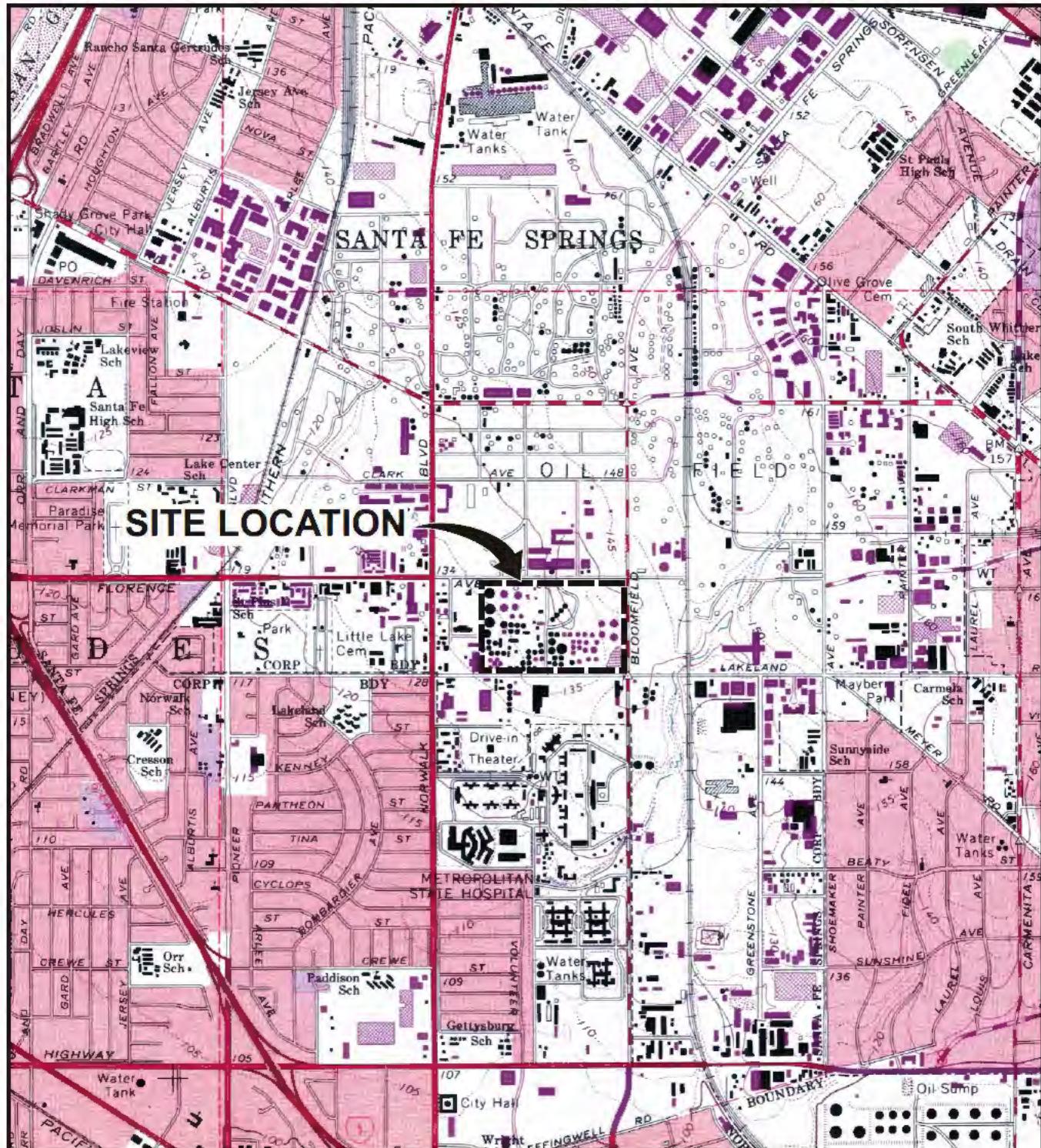
NA - Not applicable.

msl - Mean sea level.

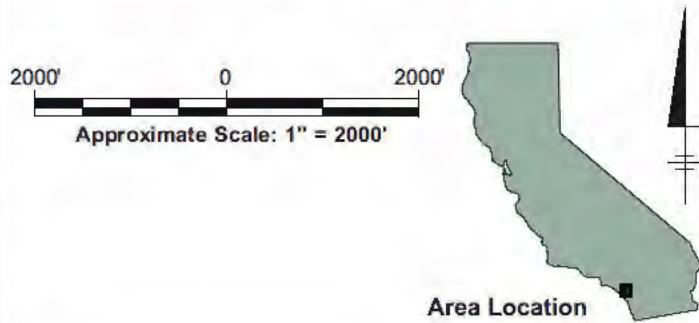
<sup>1</sup> - FPPH thickness not able to be measured, as canisters were not present the previous quarter.

<sup>2</sup> - Sheen was not detected in wells MW-504 and EW-1, therefore canisters were not put back in the wells.

## **Figures**



REFERENCE: BASE MAP USGS 7.5 MIN. QUAD., WHITTIER, CA. 1965, PHOTOREVISED 1981.



ISOLA AND RUIZ, LLP  
FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

## SITE LOCATION MAP

**FX-9 Wells**

FX-9 Wells

FX-9 Wells

FX-9 Wells

## **Appendices**

**Appendix A**

Standard Operating Procedures

**Approval Signatures**

Prepared by: Melvin T. Date: 6/9/06

Reviewed by: Jerry L. Wilg Date: 6/9/06  
(Technical Expert)

Reviewed by: Jerry L. Wilg Date: 6/9/06  
(Editorial Reviewer)

Reviewed by: Jerry L. Wilg Date: 6/9/06  
(Quality Assurance Reviewer)

Approved by: Jerry L. Wilg Date: 6/9/06  
(Project Manager)

# **Standard Operating Procedure: Field Sampling Equipment Decontamination**

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## **I. Scope and Application**

The objective of this Standard Operating Procedure (SOP) is to describe the procedures to decontaminate non-dedicated, non-disposable sampling equipment and instruments intended for reuse. Equipment decontamination will occur prior to use on the site, between each sample location, and upon completion of the sampling program prior to leaving the site. Field sampling equipment will be decontaminated at a designated onsite or offsite equipment decontamination area, as designated by supervising field personnel. Sampling equipment may include the following:

- Soil sampling equipment such as hand augers, slide hammer samplers, direct push samplers, and split spoon samplers;
- Well construction materials;
- Soil sample sleeves;
- Water quality instruments;
- Water/product level meters; and
- Additional task-specific sampling equipment.

Equipment decontamination procedures for sampling equipment will be monitored with the collection of equipment rinsate blanks collected at a frequency of 5% or one per crew per day.

Equipment decontamination is a process of neutralization, washing, and rinsing exposed outer surfaces of equipment to minimize the potential for contaminant migration or cross-contamination. Decontamination methods include physical removal of contaminants, chemical detoxification, disinfection, and sterilization. Personnel decontamination procedures are described in the site *Health and Safety Plan (HASP)* (Blasland, Bouck & Lee, Inc., 2006). Refer to the SOP for Heavy Equipment Decontamination for the proper procedure for decontaminating large equipment.

## **II. Personnel Qualifications**

Blasland, Bouck & Lee, Inc., an ARCADIS company (BBL), field personnel must have current health and safety training, including 40-hour Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) training, site supervisor training, site-specific training, first aid, and Cardio-Pulmonary Resuscitation (CPR), as needed. In addition, BBL field personnel must be versed in the relevant SOPs and possess the required skills and experience necessary to successfully complete the desired field work. All personnel of BBL's subcontractors are also required to have current 40-hour HAZWOPER training and first aid and CPR, as needed.

## **III. Equipment List**

- Appropriate personal protective equipment (PPE) as specified in the HASP;

- Distilled or deionized water;
- Potable water;
- Non-phosphate detergent (Liqui-Nox, Alconox, or equivalent);
- Plastic 5-gallon buckets;
- Scrub brushes;
- Garbage bags;
- Spray bottles;
- Sealable plastic bags;
- Polyethylene sheeting; and
- Lint-free absorbent towels.

#### **IV. Cautions**

Ensure the designated equipment decontamination area is in a secure location. The decontamination area should be established in the Contamination Reduction Zone (CRZ) as specified in the HASP.

#### **V. Health and Safety Considerations**

- Appropriate PPE must be worn by all field personnel within the designated work area, as stated in the project HASP;
- Do not attempt to clean equipment that is in service;
- Always utilize the appropriate lifting and moving techniques when transferring equipment to the washing station;
- Use caution when walking near equipment decontamination areas (EDAs) due to potential wet surfaces and slip/trip/fall hazards; and
- Field sampling equipment, PPE, and field samples must be carefully handled to minimize the potential spread of hazardous substances.

#### **VI. Procedure**

##### **Setup**

1. Don protective clothing.
2. Provide proper signs and barricades for the cleaning area to control access.
3. Place the item to be cleaned inside one of the EDA washing areas.

##### **Cleaning Procedures**

1. Pre-clean the entire piece of equipment by brushing off all large soil accumulations using a scrub brush.
2. Wash equipment in a non-phosphate detergent bath using a scrub brush. For larger items, it may be appropriate to clean the equipment in sections.

3. Clean the equipment with potable water and a scrub brush.
4. Conduct final rinsing with distilled/deionized water.
5. The equipment should be clean and dry before it is ready to be re-used on site.
6. In the case the equipment will not be used right away, wrap in aluminum foil with shiny side out for storage.

Before leaving the area where a piece of equipment has been cleaned, conduct a final check to make sure all discarded materials, including paper towels, plastic sheeting, and disposable gloves, have been picked up and placed in a properly labeled drum. At the end of the day, all personal protective equipment must be cleaned and stored on site. No contaminated clothing or equipment will be permitted to leave the site.

## **VII. Waste Management**

Decontamination water will transported from the EDA to the onsite treatment facility to be disposed off at the end of every work day. Soil residuals generated during equipment decontamination will be placed in DOT-approved drums and labeled. Containerized waste will be disposed of consistent with appropriate procedures as outlined in the Handling and Storage of Investigation-Derived Waste SOP. Used PPE is non-hazardous and will be double-bagged and placed in a municipal refuse dumpster.

## **VIII. Data Recording and Management**

Field equipment decontamination activities will be recorded in the field logbook.

## **IX. Quality Assurance**

After field decontamination, equipment should be handled only by personnel wearing clean gloves to prevent recontamination. In addition, the equipment should be moved away (preferably upwind) from the cleaning area to prevent recontamination. If the equipment is not to be immediately reused, it should be covered with plastic sheeting to prevent recontamination. The area where the equipment is kept prior to reuse must be free of contaminants.

All drums shall be properly marked, labeled, stored, and disposed in accordance with the procedures identified in the HASP.

## **X. References**

Blasland, Bouck & Lee, Inc. (BBL). 2006. *Health and Safety Plan*. Prepared for Isola and Associates, LLP, Former CENCO Refinery, Santa Fe Springs, California (January 2006).

### Approval Signatures

Prepared by: Mahr Z. Date: 6/9/06

Reviewed by: Ann L. Wig (Technical Expert) Date: 6/9/06

Reviewed by: Ann L. Wig (Editorial Reviewer) Date: 6/9/06

Reviewed by: Ann L. Wig (Quality Assurance Reviewer) Date: 6/9/06

Approved by: Ann L. Wig (Project Manager) Date: 6/9/06

# **Standard Operating Procedure: Groundwater Sampling**

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## **I. Scope and Application**

This Standard Operating Procedure (SOP) describes in detail the requirements for proper sampling of groundwater monitoring and production wells by Blasland, Bouck & Lee, Inc. (BBL) at the Former CENCO Refinery site.

## **II. Personnel Qualifications**

Blasland, Bouck & Lee, Inc., an ARCADIS company (BBL), field sampling personnel must have current health and safety training, including 40-hour Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) training, site supervisor training, site-specific training, first aid, and Cardio-Pulmonary Resuscitation (CPR), as needed. In addition, BBL field sampling personnel must conduct all groundwater sampling activities in a manner consistent with this SOP. It is the responsibility of the project manager (PM) to ensure that the activities discussed herein are properly staffed, planned, and executed.

## **III. Equipment List**

The following equipment is required for sampling groundwater monitoring and production wells:

1. **Water Level Meter:** This meter is used to measure the depth to water from the top of the well casing and the total depth of the well by lowering the probe all the way to the bottom.
2. **Organic Vapor Monitor (OVM):** This instrument is used to monitor the air quality in the breathing zone when opening a monitoring well. Organic vapor concentrations are expressed in parts per million (ppm).
3. **Vacuum Truck:** Groundwater sampling is conducted using a vacuum truck to purge the monitoring wells prior to sampling.
4. **Water Quality Meter(s):** The meter(s) measures water quality parameters of the groundwater prior to sampling. The meter(s) must be calibrated daily or prior to use in accordance to manufacturer instructions. Water quality parameters may include pH, temperature, conductivity, turbidity, dissolved oxygen, oxidation-reduction potential, and total dissolved solids. One or more meters may be required to measure the desired water quality parameters.
5. **Five-Gallon Buckets:** Buckets are needed to transport fluids used for decontaminating sampling equipment.
6. **Purge Water Collection Container:** Purged groundwater will be collected in this container for field parameters measurement prior to sampling. Container may be a vacuum truck, 55-gallon, drums, or a portable tank.
7. **Disposable Bailers:** These are polyethylene sample collection devices used to manually extract groundwater samples from monitoring and production wells. Cotton twine, rather than polyester, will be used to lower bailers down the wells in order to prevent static electricity.
8. **Sample Cooler:** A sample cooler is used to store the groundwater samples on wet ice at a temperature lower than 6°C until the samples are transferred to the analytical laboratory.

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9. **Well Keys:** In order to gain access to selected monitoring wells, the corresponding lock keys will be obtained prior to sampling.
  10. **Miscellaneous Hardware:** This includes any tools that will be needed to open the groundwater monitoring wells to be sampled, such as screw drivers and adjustable wrenches.

#### **IV. Cautions**

The breathing zone quality must be monitored for organic vapors every time a monitoring or production well is opened. This is essential to avoid exposure to high levels of toxic or combustible vapors.

Only cotton twine is to be used to lower disposable bailers down the wells to avoid fire hazard due to static.

#### **V. Health and Safety Considerations**

All personnel including subcontractors must have read, understand, and abide by all requirements stated in the site *Health and Safety Plan (HASP)* (BBL, 2006) for all site activities. All personnel will have completed 40-hour HAZWOPER training and an annual 8-hour refresher taken within the last 12 months as specified under Title 8 California Code of Regulations Section 5192.

In accordance with the BBL HASP, the following PPE is required for use when personnel are performing sampling activities at the monitoring wells.

- Hard hat, meeting ANSI Z89, when falling object hazards are present;
- Safety glasses with side shields or goggles, meeting ANSI Z87;
- Steel-toe work boots, meeting ANSI Z41;
- Work gloves, as appropriate;
- Nitrile gloves, as appropriate;
- Nomex fire retardant coveralls; and
- Full-face, National Institute for Occupational Safety and Health- (NIOSH-) approved, air-purifying respirator with organic vapor cartridges, when high levels of organic vapors are detected.

#### **VI. Procedure**

##### **A. General**

- To protect against pinch points and biological hazards, wear leather gloves when opening monitoring well covers.
- To prevent back injury while removing vault covers flush to the ground, use the vault hook.
- To prevent back injury while sampling flush wells, use a chair or equivalent.
- A site map may be required to locate the groundwater monitoring or production wells.

## B. Well Head Inspection

- The well must be securely locked using a cap or lid. The purpose of the cap is for security and to keep out insects, rodents, water or anything else that might enter the well. The cap or lid should fit snuggly and be lockable and must be replaced if otherwise. A slip cap is acceptable but may only be used when there is another means available to lock the well.
- The well casing must be in a good condition, free of large cracks, cuts, holes or other defects. Also note if the casing appears bent or dislocated more than normal.
- A seal, usually made of cement, is placed between the casing and the borehole during well construction to prevent surface water or other materials from migrating down to the aquifer. The seal must be in a good condition and not severely cracked or broken. In some cases the seal may have been extended onto the ground surface around the well to form a pad.
- There should not be any standing water around the well, whether on the ground surface or within the riser or well box.
- The well must have a legible identification marking. The marking can be a tag, label, or painted on.

## C. Sampling Monitoring Wells

- Prior to opening a monitoring well, a full-face respirator must be worn to protect possible organic volatiles. Open well slowly, while holding the OVM meter tip at the head of the well casing to obtain a reading. Record the reading on the Well Measurements Form. Obtain a second reading in the breathing zone, defined as that zone within an 18-inch radius of the face during operations. Record the reading on the Air Monitoring Log. Refer to Chapter 6 of the Former CENCO Refinery project HASP (BBL, 2006) for contaminant action levels.
- The water level below the top of the casing must be measured using a water level meter prior to sampling. The top of well casing is usually marked by black paint. Care must be taken to ensure that the meter probe does not become entangled in the stinger/air assist tubing of the well. Record the level to the nearest hundredth of a foot on the Well Measurements Form and Groundwater Sampling Form. Measure the total depth of the well for all wells not containing free product. Depending on the water level meter utilized, 0.3 inches must be added to the total depth of the water level reading. If a total well depth measurement cannot be obtained due to limited space within the well, an approximate depth from well construction information sheet can be used to calculate the casing and purge volume.
- The well purge volume must be calculated and recorded next. The well volume factors listed in the table below are used to calculate the bore volume and purge volume.

### Well Volume Conversion Factors

<b>Well Casing ID (inches)</b>	<b>Volume Factor (gal/ft)</b>
2.0	0.1632
3.0	0.3672
4.0	0.6528
4.5	0.8260
6.0	1.4690

ID – Inside diameter  
gal/ft – Gallons per foot

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$$\text{Casing Volume (C), gal} = (D-L) \times V \quad (1)$$
$$\text{Calculated Purge Volume, gal} = C \times P \quad (2)$$

Where:

D = total depth (ft)

L = depth to water level (ft)

V = Well volume factor (gal/ft)

P = Number of volumes to purge = 3 (Maximum of five if readings are not stable)

With the assistance of a vacuum truck, begin purging well and collect an initial field parameter measurement and record the required field parameters as stated on the Groundwater Sampling Form (pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity). Continue collecting field parameter measurements during purging (minimum of 2 measurements per well volume purged) until a minimum of 3 casing volumes have been purged and pH, temperature, and conductivity are within 10% for the final 3 consecutive readings. If field parameters have not stabilized after five casing volumes have been purged, document the final measurements and sample. Make note of the lack of stabilization and bring to PM's attention.

- Decontaminate the field parameter probe, turn meters off and close storage cases. Decontaminate the field parameter collection container and store until next use.
- Record water level measurement following purging completion. Proceed to sampling only if the well has recharged to at least 80% of the original static water level.
- Using a disposable bailer tied to a cotton twine, sample the groundwater monitoring well, collect the samples in labeled containers, and store on ice in a cooler. The sample vials and bottles might contain preservatives depending on the analysis method. Record samples on the Chain of Custody (COC) forms.
- Replace the vault lid back on the well and lock.

## NOTES

- If the well runs dry before three well casing volumes can be purged or parameters stabilized, the well is considered dewatered and should be allowed to recharge. The well is considered dry if, upon returning 24 hours later, one set of field parameters and the sample cannot be collected. If well is dry, record DRY on the Groundwater Sampling Form. If well recovery rate is  $\geq 80\%$  within 24 hours of purging, take 1 set of parameters and required samples. If well recovery rate is  $< 80\%$  the following day and there is enough water to sample, then it is acceptable to take one set of parameters and the required samples. Finally, if unable to fill all sample containers due to the well dewatering while sampling, it is permissible to return within 24 hours to finish filling sample containers (this may continue into another 24 to 48 hour period after original purging due to slow recovery rate). Do not re-purge the well in this case.
- The following must be noted in comments on the Groundwater Sampling Form: water level prior to sampling, time of each sampling, and percent recovery rate of the well prior to each sampling.

## VII. Waste Management

All equipment utilized in groundwater monitoring and production wells must be thoroughly decontaminated with a non-phosphate detergent solution and rinsed with deionized water (decontamination solution is a 1:3

mixture of detergent and DI water). All generated purged groundwater and decontamination liquids must be transported daily to the onsite wastewater treatment facility for disposal by the end of the sampling event.

## **VIII. Data Recording and Management**

Groundwater sampling activities must be recorded in the field logbook.

## **IX. Quality Assurance**

All purged groundwater and decontamination fluids will be disposed of at an onsite wastewater treatment system. Containerized waste will be disposed of consistent with appropriate procedures as outlined in the Handling and Storage of Investigation-Derived Waste SOP. Used PPE is non-hazardous and will be double-bagged and placed in a municipal refuse dumpster.

All drums shall be properly marked, labeled, stored, and disposed in accordance with the procedures identified in the HASP.

## **X. References**

Blasland, Bouck & Lee, Inc. (BBL). 2006. *Health and Safety Plan*. Prepared for Isola and Associates, LLP, Former CENCO Refinery, Santa Fe Springs, California (January 2006).

### **Approval Signatures**

Prepared by: Melvin Z. Date: 6/9/06

Reviewed by: Jean L. Wieg Date: 6/9/06  
(Technical Expert)

Reviewed by: Jean L. Wieg Date: 6/9/06  
(Editorial Reviewer)

Reviewed by: Jean L. Wieg Date: 6/9/06  
(Quality Assurance Reviewer)

Approved by: Jean L. Wieg Date: 6/9/06  
(Project Manager)

# **Standard Operating Procedure: Handling and Storage of Investigation-Derived Waste**

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## **I. Scope and Application**

The objective of this Standard Operating Procedure (SOP) is to describe the procedures to manage investigation derived wastes (IDW) generated during drilling, well sampling, and decontamination procedures. IDW may include soil, groundwater, drilling fluids, decontamination liquids, personal protective equipment (PPE), and disposable sampling materials that may have come in contact with potentially impacted materials. All IDW will be collected at the point of generation and taken to a storage area onsite or to a disposal facility. Soil will be containerized in roll-off bins and DOT-approved drums and analyzed for constituents of concern to evaluate proper disposal methods. Contaminated groundwater, drilling fluids and decontamination liquids will be disposed off daily at an onsite wastewater treatment system and, thus, will not need to be stored. PPE and disposable sampling equipment is considered non-hazardous and will be double-bagged and placed in a municipal refuse dumpster. This SOP describes the necessary equipment, field procedures, materials, and documentation procedures necessary to do so, as well as the handling of these materials up to the time they are properly disposed. The procedures for handling IDW are based on the United States Environmental Protection Agency's *Guide to Management of Investigation Derived Wastes* (USEPA, 1992).

IDW will be managed to ensure the protection of human health and the environment and will comply with all applicable or relevant and appropriate requirements (ARAR). The following Laws and Regulations on Hazardous Waste Management are potential ARAR for this site.

### **State Laws**

- Hazardous Waste Control Law (HWCL) Health and Safety Code §25100-25249;
- Hazardous Substance Account Act (HSAA) Health and Safety Code §25340-25392; and
- Hazardous Waste Treatment Permitting Reform Act (AB 1772) Health and Safety Code §25201.

### **State Regulations**

- Identification and Listing of Hazardous Waste 22 California Code of Regulations (CCR) §§66261-66261.126;
- Requirements for Generators, Generally 22 CCR §§66262.10-66262.70;
- Requirements for Generators, Contingency Plan 22 CCR §§66264.50-66265.56;
- Requirements for Generators, Personnel Training 22 CCR §66265.16;
- Requirements for Transporters 22 CCR §66263; and
- Land Disposal Prohibitions 22 CCR §66268.

### **Federal Laws**

- Resource Conservation and Recovery Act (RCRA) 42 United States Code (USC) §6901-6987;

- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 42 USC §9601-9675; and
- Superfund Amendments and Reauthorization Act (SARA).

Pending characterization, IDW will be stored appropriately onsite. Under RCRA, “storage” is defined as “the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere” (40 Code of Federal Regulations [CFR] 2690.10). The onsite waste staging area will be in a secure and controlled area. Waste characterization involves sending samples for each media to a California-certified laboratory for analysis. Based on the results of previous waste characterization sampling completed at the Site, IDW is assumed to be a RCRA non-hazardous and California non-hazardous industrial waste. IDW will be classified as RCRA hazardous or California hazardous, if analytical results indicate hazardous characteristics.

If IDW exhibits RCRA hazardous characteristics, RCRA requirements will be followed for packaging, labeling, transporting, storing, and recordkeeping, as described in 22 CCR §66262.34. Wastes judged to potentially meet the criteria for hazardous wastes shall be stored in DOT-approved containers. Waste material classified as RCRA non-hazardous may be handled and disposed of as an industrial waste.

If IDW exhibits California hazardous characteristics, Title 22 of the California Code of Regulations will be followed for packaging, labeling, transporting, storing, and recordkeeping, as described in 22 CCR §66262. Waste material classified as California non-hazardous waste may be disposed of as an industrial waste. Blasland, Bouck & Lee, Inc., an ARCADIS company (BBL), is responsible for waste handling and characterization. BBL will also contract a licensed waste hauler to dispose of hazardous waste.

## **II. Personnel Qualifications**

BBL field personnel must have current health and safety training, including 40-hour Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) training, site supervisor training, site-specific training, first aid, and Cardio-Pulmonary Resuscitation (CPR), as needed. In addition, BBL field personnel must be versed in the relevant SOPs and possess the required skills and experience necessary to successfully complete the desired field work.

## **III. Equipment List**

- Appropriate personal protection equipment (PPE) as specified in the *Health and Safety Plan (HASP)* (BBL, 2006);
- 55-gallon steel drums, DOT 1A2 or equivalent;
- Socket wrench set;
- Hammer;
- Leather gloves;
- Drum dolly;
- Appropriate drum and bin labels (outdoor waterproof self-adhesive);
- DOT-approved roll-off bins;
- Indelible ink and/or permanent marking pens; and

- Appropriate sample containers, labels, and forms.

#### **IV. Cautions**

1. Filled drums can be very heavy; always use appropriate moving techniques and equipment.
2. Similar media must be stored in the same drums to aid in sample analysis and disposal.
3. Drum lids must be secured to prevent rainwater from entering the drums.
4. Drums containing solid material may not contain any free liquids.
5. All drums must be in good condition to prevent potential leakage and facilitate subsequent disposal. Inspect the drums for dents and rust, and verify the drum has a secure lid prior to use.

#### **V. Health and Safety Considerations**

1. Appropriate PPE must be worn by all field personnel within the designated work area, as stated in the project HASP.
2. Air must be periodically monitored during drilling and sampling activities, as required in the HASP.
3. If excavating in potentially hazardous areas is possible, contingency plans should be developed to address the potential for encountering gross contamination or non-aqueous phase liquids (NAPL).

#### **VI. Procedure**

Impacted soil generated from drilling and sampling activities will be transported in a hopper to onsite roll-off bins for storage or transferred to a 55-gallon drum. Every container must be properly labeled and covered to prevent rainwater from entering and to minimize the release of the contaminants to the surroundings. Waste materials, such as broken sample bottles or equipment containers and wrappings, will not be placed in bins or drums with soil or water.

#### **Waste Management**

Waste management efforts will focus on the minimization of IDW during the project activities. For example, aqueous-based cleaners instead of solvent-based ones must be used for the decontamination of equipment; traffic between exclusion and support zones must be minimized; and drilling methods and sampling techniques that generate relatively less waste must be adopted.

#### **Waste Container Labeling**

Outdoor, waterproof, self-adhesive labels must be used to identify drums and bins containing soil cuttings. IDW containers will be labeled as follows:

- Appropriate California waste characterization label (Testing In Progress, Hazardous, or Non-Hazardous);
- Waste generator's name (BBL);
- Project name (CENCO Former Refinery);
- Project address (12345 Lakeland Road, Santa Fe Springs, CA);
- Name and telephone number of BBL Field Manager;

- Accumulation start date; and
- Container number.

### **Drilling Soil Cuttings and Muds**

Soil cuttings are solid to semi-solid soils generated during trenching activities, subsurface soil sampling, or installation of monitoring wells. Since direct push, hollow stem auger, and sonic rotary drilling are the techniques of choice in this project, no drilling fluids or “muds” will be used to remove soil cuttings.

Soil cuttings will be stored in 55-gallon steel drums or roll-off bins, which will be kept closed during storage and maintained in good condition in accordance with the *Guide to Management of Investigation-Derived Wastes* (USEPA, 1992).

### **Decontamination Solutions**

Decontamination solutions are generated during decontamination of PPE and sampling equipment. Decontamination solutions may range from non-phosphate detergents (e.g. Liqui-Nox) to decontaminate small field sampling equipment to steam cleaning rinsate used to wash heavy field equipment. These solutions will be disposed of at an onsite wastewater treatment system.

### **Disposable Equipment**

Disposable equipment includes PPE (Tyvek® coveralls, gloves, booties, and APR cartridges) and disposable sampling equipment such as disposable bailers. These materials are considered non-hazardous and will be double-bagged and disposed of in a municipal refuse dumpster.

### **Purge Water**

Purge water includes groundwater generated during well development, groundwater sampling, or aquifer testing. The volume of groundwater generated will dictate the appropriate storage procedure. Monitoring well development and groundwater sampling may generate three well volumes of groundwater or more. This volume will be temporarily stored in vacuum truck (utilized to purge the wells) or waste containers (portable tanks or drums) prior to disposal at the onsite wastewater treatment system.

## **VII. Data Recording and Management**

Waste characterization sample handling, packing, and shipping procedures will be documented in the field logbook. Copies of the chain-of-custody forms will be maintained in the project file. Following waste characterization, BBL will initiate disposal at the appropriate waste disposal facility.

## **VIII. Quality Assurance**

The chain-of-custody and sample labels for waste characterization samples will be filled out in accordance with the *Additional Site Investigation Work Plan* (Haley & Aldrich, Inc., 2005).

## **IX. References**

Blasland, Bouck & Lee, Inc. (BBL). 2006. *Health and Safety Plan*. Prepared for Isola and Associates, LLP, Former CENCO Refinery, Santa Fe Springs, California (January 2006).

California Environmental Protection Agency (CalEPA). 1995. *Representative Sampling of Groundwater for Hazardous Substances*. Guidance Manual for Ground Water Investigations (July 1995).

Haley & Aldrich, Inc. 2005. *Additional Site Investigation Work Plan, CENCO Refining Company* (May 9, 2005).

United States Environmental Protection Agency (USEPA). 1992. *Guide to Management of Investigation-Derived Wastes*. Office of Remedial and Emergency Response. Hazardous Site Control Division (January 1992).

**Appendix B**

Groundwater Monitoring Field  
Forms

## WELL MEASUREMENTS FORM

Site Name: Former CENCO Refinery  
 Client: Troha & Ruiz, LLP  
 Project Location: Santa Fe Springs, CA

Date: 05.07.07  
 Recorded By: Mohit Jain / Matt Worthington  
 Weather: Clear, sunny, warm

WELL ID	DEPTH TO WATER	TOTAL DEPTH	DEPTH TO PRODUCT	PRODUCT THICKNESS	PID (ppm)	LEL (%)	H <sub>2</sub> S (ppm)	O <sub>2</sub> (%)	COMMENTS
MW 604	101.28	103.20	—	—	0.0	0.0	0.0	20.9	0.0
MW 601A	89.64	89.66	—	—	29.7	100	0.0	11.8	Light odor from well
MW 606	88.40	99.19	—	—	0.3	0.0	0.0	21.6	0.0
MW 605	85.54	92.90	—	—	0.0	0.0	0.0	21.9	0.0
MW 603	84.24	97.68	—	—	0.0	0.0	0.0	22.0	0.0
MW 607	99.61 <sup>(*)</sup>	106.87	—	~	29.0	0.0	0.0	20.9	0.0
MW 104A	88.09	99.93	—	—	0.3	0.0	0.0	9.2	0.0
W-9	84.35	110.07	—	—	69.0	32.0	0.0	0.5	0.0
MW 204	93.79	99.63	—	—	153.0	35.0	0.0	9.2	0.0
W-8	62.96	NM	—	—	0.0	0.0	0.0	20.0	0.0
W-12	93.44	115.90	—	—	23.6	100+	0.0	6.0	0.0
MW 103	92.29	74.81	—	—	75.0	100+	0.0	11.2	0.0
MW 202	Dry	72.69	—	—	56.8	100	0.0	20.2	0.0
MW 205	88.08	98.71	—	—	16.2	100+	0.0	14.2	0.0
MW 201	88.71	100.86	—	—	20.1	0.0	0.0	20.9	1.0
MW-203	93.65	102.40	—	—	18.5	0.0	0.0	20.7	0.0

## WELL MEASUREMENTS FORM

Site Name: Former CENW Refinery  
 Client: Fiesta & Ruiz, LLP  
 Project Location: Santa Fe Springs, CA

Date: 05.27.07  
 Recorded By: Mater Zin / Matt Worthington  
 Weather: Sunny, warm 100°

WELL ID	DEPTH TO WATER	TOTAL DEPTH	DEPTH TO PRODUCT	PRODUCT THICKNESS	PID (ppm)	LEL (%)	H <sub>2</sub> S (ppm)	O <sub>2</sub> (%)	CO	COMMENTS
MW-106A	95.51	110.21	—	—	400	0.0	0.0	20.0	0.0	
MW-107A	96.04	109.52	—	—	0.0	4%	0.0	7.0	0.0	
MW-500A	85.61	NM	85.49	.12	510	52	0.0	20.7	0.0	
W-4	101.36	129.62	—	—	195	15%	0.0	0.0	0.0	
W-3A	100.04	110.13	—	—	11.5	100%	0.0	0.0	0.0	
W-1	100.11	129.65	—	—	33.4	100+	0.0	0.0	0.0	
EW-1	97.88	112.23	—	—	16.6	100+	1.0	31	50.0	
MW-503B	90.63	108.30	—	—	76.0	100+	3.0	1.2	500	1106
MW-502	90.15	100.68	—	—	125	100+	0.0	0.0	0.0	
MW-501A	90.39	93.21	—	—	65	100+	7.0	0.0	0.0	
MW-105	97.11	100.32	—	—	49.9	100+	0.0	0.0	0.0	
MW-101	87.63	90.80	—	—	29.3	100+	0.0	8.9	6.5	
W-11	90.60	112.30	—	—	30.1	100+	0.0	14.0	0.0	
W-10	87.60	109.82	—	—	108.0	56.2	0.0	18.0	0.0	
W-7	82.85	NM	—	—	0.0	0.0	0.0	20.7	0.0	
MW-504	90.69	96.30	—	—	65.5	100+	3.0	3.7	0.0	

**GROUNDWATER SAMPLING FORM**

Site Name : Former CENCO Refinery  
 Project Number : B2254205  
 Recorded by : Mohar Jain

Well Number MW-101  
 Well Type: Monitor Extraction Other:  
 Date: 05.11.07 Time: 07:05

**WELL PURGING**
**PURGE VOLUME**

Casing Diameter (D in inches) \_\_\_\_\_

2-inch  4-inch  6-inch  Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 90.30

Water Level Depth (WL in feet BTOC) 87.63

Number Of Well Volumes to be Purged (# Vols)

4      5      10       Other 3

**PURGE METHOD**

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other Type Vacuum Truck

**PURGE VOLUME CALCULATION**

$$\frac{(90.30 - 87.63) \times 2}{\text{TD (feet)} \quad \text{WL (feet)}} \times \frac{\text{D(inches)}^2}{\# \text{ Vols}} \times 0.0408 = \frac{1.74}{\text{Calculated Purge Volume}} \text{ gallons}$$

0.65

7.5 gallons

**PURGE TIME**

0715 Start 0747 Stop 32 Elapsed

**PURGE RATE**

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

\_\_\_\_\_

**FIELD PARAMETER MEASUREMENT**

Average purge rate 20.23 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or ppm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0719	2	14.27	6.92	2.65	5.67	17	>999	
0725	3.5	14.03	7.54	2.61	8.69	-27	>999	
0733	5	13.51	7.75	2.56	8.03	-43	7.31	
0746	7	13.52	7.78	2.56	8.37	-49	5.13	

Sample was clear, with slight H2S odor.

Very low purge rate.

Observations During Purging (Turbidity, Color, Odor, Well Condition etc): very silty & turbid, slight H2S odor  
 Discharge Water Disposal: Onsite treatment facility

**WELL SAMPLING**

MW-101-0507

**SAMPLING METHOD**

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Discards

Sampling Time (80%) Recharge: 0810

Depth to Water : 87.99 ft bgs

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

**GROUNDWATER SAMPLING FORM**

Site Name : Fawer SENIWI Refinery  
 Project Number : B0054205 MZ  
 Recorded by : Maher Zein

Well Number MW-103  
 Well Type Monitor Extraction Other: \_\_\_\_\_  
 Date: 05.09.07 Time: 1045

**WELL PURGING**
**PURGE VOLUME**

Casing Diameter (D in inches) \_\_\_\_\_

2-inch 4-inch 6-inch Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 94.81

Water Level Depth (WL in feet BTOC) 92.29

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

**PURGE METHOD**

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other - Type Vacuum Tank

**PURGE VOLUME CALCULATION**

$$\frac{(94.81 - 92.29)}{\text{TD (feet)}} \times \frac{2}{\text{inches}} \times \frac{0.0408}{\text{# Vols}} = \frac{1.64}{0.65} \text{ gallons}$$

**VOLUME GENERATED**

18 gallons

**PURGE TIME**

1054 Start 1121 Stop 27 Elapsed

**PURGE RATE**

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

**CONTROLLER SETTING**
**FIELD PARAMETER MEASUREMENT**

Average purge rate = 0.67 gpm.

Sample bluish  
with slight odor.

Time	Volume (gallons)	Temp <u>24°C</u>	pH	EC (ms/cm or <u>µmho</u> )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1056	2	28.8	7.78	2.38	3.28	145	44.9	
1059	4	26.92	7.79	2.29	3.57	107	145	
1102	6	26.73	7.74	2.29	4.31	110	85.6	
1105	8	26.18	7.70	2.37	4.57	111	84.7	
1111	12	26.53	7.72	2.29	4.97	120	81.7	
1119	16	26.43	7.75	2.35	4.39	121	66.6	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc): Bluish GW (initially)  
 Discharge Water Disposal: Onsite treatment facility

**WELL SAMPLING**
**SAMPLING METHOD**

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type: Disposable

Sampling Time (80%) Recharge: 1130

Depth to Water: 92.55 ft bgs.

MW-103-0507

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

**GROUNDWATER SAMPLING FORM**

Site Name : Fawwar CFINCO Refinery  
 Project Number : B-54205  
 Recorded by : Mahir Zain

Well Number MW-104A  
 Well Type Monitor Extraction Other: \_\_\_\_\_  
 Date: 25-08-17 Time: 1220

**WELL PURGING**
**PURGE VOLUME**

Casing Diameter (D in inches) \_\_\_\_\_

2-inch 4 inch 6-inch Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 99.93

Water Level Depth (WL in feet BTOC) 88.9

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

**PURGE METHOD**

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other Type Vacuum Truck

**PURGE VOLUME CALCULATION**

$$\frac{(99.93 - 88.9)}{TD \text{ (feet)}} \times \frac{2}{WL \text{ (feet)}} \times \frac{D \text{ (inches)}}{\# \text{ Vols}} \times 0.0408 = \frac{7.75}{\text{Calculated Purge Volume}} \text{ gallons}$$

25 gallons

**PURGE TIME**

123 Start 1314 Stop 44 Elapsed

**PURGE RATE**

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

**FIELD PARAMETER MEASUREMENT**

Average purge rate = 0.57 gpm.

Time	Volume (gallons)	Temp (F)	pH	EC (mV/cm or $\mu\text{S}/\text{cm}$ )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1237	8	29.94	7.99	2.98	4.13	198	152	
1247	16	27.59	8.79	3.20	3.75	192	150	
1311	24	28.64	8.76	3.29	4.43	208	157	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal:

Onsite Treatment Facility

Sample for biological profile

**WELL SAMPLING**
**SAMPLING METHOD**

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1345

Depth to Water: 89.5

MW-104A-2507

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

**GROUNDWATER SAMPLING FORM**

Site Name : Former CENCO Refinery  
 Project Number : B0054205  
 Recorded by : Mahan Zein

Well Number MW-105  
 Well Type Monitor Extraction Other: \_\_\_\_\_  
 Date: 05.09.07 Time: 0935

**WELL PURGING**
**PURGE VOLUME**

Casing Diameter (D in inches) \_\_\_\_\_

2-inch  4-inch  6-inch  Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 100.32

Water Level Depth (WL in feet BTOC) 87.11

Number Of Well Volumes to be Purged (# Vols)

4      5      10       Other 3

**PURGE METHOD**

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other Type Vacuum Truck

**PURGE VOLUME CALCULATION**

$$\left( \frac{100.32 - 87.11}{TD \text{ (feet)}} \right) \times \frac{^2\pi}{D \text{ (inches)}} \times \frac{0.45}{\# \text{ Vols}} \times 0.0408 = \frac{8.59}{\text{Calculated Purge Volume}} \text{ gallons}$$

**VOLUME GENERATED**

55 gallons

**PURGE TIME**

04:43 Start 05:13 Stop 30 Elapsed

**PURGE RATE**

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

**FIELD PARAMETER MEASUREMENT**

Average purge rate 2 1.83 gpm.

Time	Volume (gallons)	Temp °C	pH	EC (ms/cm or $\mu\text{mho}$ )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0447	9	23.18	7.66	2.08	5.17	-58	355	
0452	18	23.39	7.66	1.04	4.29	-56	136	
0457	27	23.71	7.63	2.05	3.95	-67	76.1	
1005	36	23.32	7.68	2.00	5.91	-59	75.6	
1008	45	23.66	7.69	2.00	3.82	-68	363	
1112	54	23.54	7.70	1.99	4.96	-69	123	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility depth=3 sample

**WELL SAMPLING**
**SAMPLING METHOD**

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1020

Depth to Water: 87.22 ft bgs.

MW-105-0507 + D

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former SNC Refinery  
 Project Number : B-54205  
 Recorded by : Mahesh Jain

Well Number MW-106A  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 05.IV.07 Time: 0727

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch    4-inch    6-inch    Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 110.21

Water Level Depth (WL in feet BTOC) : 95.51

Number Of Well Volumes to be Purged (# Vols)

4    5    10    Other    3

#### PURGE METHOD

Bailer - Type →

Submersible    Centrifugal    Bladder

Other-Type Vacuum Truck

#### PURGE VOLUME CALCULATION

$$\left( \frac{110.21 - 95.51}{\text{TD (feet)}} \times \frac{\text{D (inches)}}{\text{WL (feet)}} \times \frac{1}{\# \text{ Vols}} \right) \times 0.0408 = \frac{9.56}{\text{Calculated Purge Volume}} \text{ gallons}$$

0.15

#### VOLUME GENERATED

42 gallons

#### PURGE TIME

0742 Start 0757 Stop 0751 Elapsed

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### CONTROLLER SETTING

#### FIELD PARAMETER MEASUREMENT

Average Purge Rate = 2.1 gpm

Time	Volume (gallons)	Temp (F)	pH	EC (ms/cm or ppm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0742	10	22.44	6.82	2.1	4.96	225	202	
0746	20	23.29	7.45	2.12	5.58	155	158	
0751	30	22.98	7.73	2.08	5.46	155	24.7	
0755	40	22.98	7.77	2.02	5.09	146	2.1	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc): Clear, no odor.

Discharge Water Disposal: Onsite treatment facility

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 08:45

Depth to Water: 95.62 ft bgs.

MW-106A-0507

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former FNCD Refinery  
 Project Number : B0054205  
 Recorded by : Mahmud Zain

Well Number MW-107A  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 05.10.07 Time: 0815

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch  4-inch  6-inch  Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 129.52

Water Level Depth (WL in feet BTOC) 98.29

Number Of Well Volumes to be Purged (# Vols)

4      5      10       Other 3

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other Type Vacuum Pump

#### PURGE VOLUME CALCULATION

$$\frac{(129.52 - 98.29) \times 12}{D(\text{inches})} \times 3 = \frac{8.73}{\text{Calculated Purge Volume}} \text{ gallons}$$

TD (feet)      WL (feet)      D(inches)      # Vols      0.65

#### VOLUME GENERATED

38 gallons

#### PURGE TIME

0824 Start 0842 Stop 18 Elapsed

#### PURGE RATE

Initial gpm Final gpm Initial Hz Final Hz

#### CONTROLLER SETTING

Average Purge Rate: 2.11 gpm

#### FIELD PARAMETER MEASUREMENT

Time	Volume (gallons)	Temp (°C)	pH	EC (µs/cm or ms/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0828	9	22.27	7.89	1.91	6.13	-310	183	
0832	18	23.27	7.91	1.92	5.62	-296	95.5	
0837	27	23.36	7.98	1.95	5.67	-318	43.4	
0841	36	23.56	7.91	1.98	7.23	-321	3.3	

32mng  
to

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):  
 Discharge Water Disposal: Ozone Treatment Facility

Sulfide odor (moderate)

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type: Disposable

Sampling Time (80%) Recharge: 0850

Depth to Water: 96.15 ft bgs

MW-107A-0507

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

**GROUNDWATER SAMPLING FORM**

Site Name : Former CENCO Refinery  
 Project Number : B0054205  
 Recorded by : Mahesh Tam

Well Number MW-201  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 05-09-07 Time: 1255

**WELL PURGING**
**PURGE VOLUME**

Casing Diameter (D in inches) \_\_\_\_\_

2-inch 4-inch 6-inch Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 100.86

Water Level Depth (WL in feet BTOC) 88.79

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

**PURGE VOLUME CALCULATION**

$$\frac{(100.86 - 88.79)}{\text{TD (feet)}} \times \frac{^2\pi}{\text{D (inches)}} \times \frac{\text{# Vols}}{0.65} = \frac{7.85}{\text{Calculated Purge Volume}} \text{ gallons}$$

**VOLUME GENERATED**

36 gallons

**PURGE TIME**

1305 Start 1324 Stop 19 Elapsed

**PURGE RATE**

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

**CONTROLLER SETTING**

Average purge rate = 1.89 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (mS/cm or <del>µmho</del> )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1310	8	25.54	7.68	2.17	4.82	137	2.71	
1314	16	24.00	7.66	2.19	4.69	130	6.7.1	
1319	24	24.25	7.69	2.10	5.52	129	6.10	
1323	32	23.89	7.62	2.08	6.82	128	4.7	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Ozone treatment facility

**WELL SAMPLING**
**SAMPLING METHOD**

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1330

Depth to Water: 88.82 ft bgl

MW-201-0507

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

**GROUNDWATER SAMPLING FORM**

Site Name : Former CENCO Refinery  
 Project Number : B2254205  
 Recorded by : Mahur Tech

Well Number MW-203  
 Well Type: Monitor Extraction Other:  
 Date: 05.10.21 Time: 0912

**WELL PURGING**
**PURGE VOLUME**

Casing Diameter (D in inches) \_\_\_\_\_

2-inch    4-inch    6-inch    Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 102.4

Water Level Depth (WL in feet BTOC) : 93.65

Number Of Well Volumes to be Purged (# Vols)

4    5    10    Other    3

**PURGE METHOD**

Bailer - Type \_\_\_\_\_

Submersible    Centrifugal    Bladder

Other - Type Vacuum Tank

**PURGE VOLUME CALCULATION**

$$\frac{(102.4 - 93.65)}{\text{TD (feet)}} \times \frac{^2}{\text{D (inches)}} \times \frac{X}{\# \text{ Vols}} \times 0.0408 = \frac{5.69}{\text{Calculated Purge Volume}} \text{ gallons}$$

25 gallons

**PURGE TIME**

0912 Start 0939 Stop 27 Elapsed

**PURGE RATE**

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

**FIELD PARAMETER MEASUREMENT**

Average Flow Rate = 0.93 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (mS/cm or uS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0912	6	23.02	7.80	2.51	5.44	-32	160	
0923	12	21.28	7.85	2.51	5.16	-27	195	
0929	18	21.18	7.77	2.50	6.32	-20	179	
0937	24	21.94	7.75	2.50	6.29	-23	214	

Slow in recharge.

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal:

Outside Discharge Facility

Turbidity was going down.

**WELL SAMPLING**
**SAMPLING METHOD**

MW-203-0527

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 100S

Depth to Water : 95.20 ft bgs.

Sample No	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former Circle Ranch  
 Project Number : B2254205  
 Recorded by : Maher Jain

Well Number MW-205  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 05.09.07 Time: 1205

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch  4-inch  6-inch  Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 98.71

Water Level Depth (WL in feet BTOC) 88.08

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other Type Vacuum Truck

#### PURGE VOLUME CALCULATION

$$(\frac{98.71 - 88.08}{TD \text{ (feet)}} \times \frac{4}{WL \text{ (feet)}} \times \frac{\pi}{D \text{ (inches)}} \times 0.0408) = \frac{6.91}{\text{Calculated Purge Volume}} \text{ gallons}$$

3.65

#### VOLUME GENERATED

30 gallons

#### PURGE TIME

1217 Start 1229 Stop 18 Elapsed

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

Average purge rate = 1.67 gpm

Time	Volume (gallons)	Temp °F/C	pH	EC (ms/cm or $\mu$ s/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1215	7	25.81	7.63	2.20	5.07	163	44.3	
1219	14	24.89	7.68	2.24	5.43	82	34.3	
1223	21	24.50	7.70	2.23	5.23	76	28.3	
1227	28	23.89	7.69	2.21	5.96	78	2.0	

GW sample  
is clear.

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal:

Onsite treatment facility      Samples for biological evaluation

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1235

Depth to Water : 88.13 ft bgs

MW-205-0507

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former GEMCO Refinery  
 Project Number : B0054205  
 Recorded by : Maher Zain

Well Number MW-S01A  
 Well Type:  Monitor  Extraction Other: \_\_\_\_\_  
 Date: 05.11.21 Time: 1345

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch  4-inch  6-inch  Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 93.21

Water Level Depth (WL in feet BTOC) 90.39

Number Of Well Volumes to be Purged (# Vols)

4      5      10       Other 3

#### PURGE VOLUME CALCULATION

$$\frac{(93.21 - 90.39)}{\text{TD (feet)}} \times \frac{?}{\text{D (inches)}} \times \frac{X}{\# \text{ Vols}} = \frac{1.83}{\text{Calculated Purge Volume}} \text{ gallons}$$

3.65

13 gallons

1357 Start 1406 Stop 14 Elapsed

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

Average Purge rate = 0.93 gpm.

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or ppm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1357	2	28.00	7.42	2.28	5.27	-91	251	
1402	4	25.91	7.42	2.29	3.51	-98	92.7	
1402	6	26.07	7.41	2.29	4.32	-140	69.4	
1403	8	25.64	7.41	2.29	4.93	-134	56.1	
1405	10	25.71	7.40	2.27	4.31	-149	32.5	
1406	12	25.82	7.41	2.29	3.65	-157	29.7	

Purge

Water well, but sample was very turbid & sandy & had some HCl smell.

### WELL SAMPLING

MW-S01A-0507

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1420

Depth to Water: 90.42 m bgs.

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Farmer (ENR) Refinery  
 Project Number : B-2542-05  
 Recorded by : Major Zain

Well Number MW-502  
 Well Type Monitor Extraction Other:  
 Date: 05.11.17 Time: 1255

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches)

2-inch  4-inch 6-inch Other

Total Depth of Casing (TD in feet BTOC) 100.68

Water Level Depth (WL in feet BTOC) 90.15

Number Of Well Volumes to be Purged (# Vols)

4      5      10       Other 3

#### PURGE METHOD

Bailer - Type

Submersible      Centrifugal      Bladder

Other Type Vacuum Truck

#### PURGE VOLUME CALCULATION

$$\frac{(TD \text{ (feet)} - WL \text{ (feet)})}{D \text{ (inches)}} \times \frac{2\pi}{4} \times \frac{0.0408}{# \text{ Vols}} = \frac{6.84}{\text{Calculated Purge Volume}} \text{ gallons}$$

0.65

37 gallons

#### PURGE TIME

1305 Start 1324 Stop 24 Elapsed

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### CONTROLLER SETTING

#### FIELD PARAMETER MEASUREMENT

Average purge rate = 1.54 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1305	7	26.61	7.69	2.89	5.41	22	102	1
1310	14	24.91	7.65	2.10	4.64	13	42.2	
1314	21	24.34	7.64	2.27	5.46	-29	93.2	
1318	28	24.51	7.61	2.08	5.70	-30	62.6	
1322	35	25.3	7.58	2.08	5.42	-18	53.8	

- Black debris.
- Strong HCl odor.

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal:

Light yellow color.

### WELL SAMPLING

MW-502-0507

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type: Disposable

Sampling Time (80%) Recharge: 1335

Depth to Water: 90-24 m bgs.

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former CFNCA Refinery  
 Project Number : B0054205  
 Recorded by : Maher Zein

Well Number MW-503B  
 Well Type Monitor Extraction Other: \_\_\_\_\_  
 Date: 5.11.17 Time: 12:10

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch 4-inch, 6-inch Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 108.8

Water Level Depth (WL in feet BTOC) 90.63

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Others 3

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other Type Vacuum Truck

#### PURGE VOLUME CALCULATION

$$\left( \frac{108.8 - 90.63}{\text{TD (feet)}} \times \frac{2}{\text{D (inches)}} \times \frac{0.0408}{\# \text{ Vols}} \right) = \frac{11.81}{\text{Calculated Purge Volume}} \text{ gallons}$$

50 gallons

12:14 Start 12:34 Stop 2:20 Elapsed

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

Average purge rate = 2.5 gpm

#### FIELD PARAMETER MEASUREMENT

Time	Volume (gallons)	Temp (°F/°C)	pH	EC (ms/cm or µs/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
12:19	12	24.90	7.83	1.74	5.02	-88	58.8	
12:23	24	23.88	7.86	1.76	5.35	-102	24.3	
12:29	36	23.98	7.89	1.76	6.32	-104	11.8	
12:34	48	23.64	7.87	1.77	5.51	-101	1.6	

- Moderate HC water
- slightly greenish

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):  
 Discharge Water Disposal: Outside French drain

Biological presence

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 12:42

Depth to Water: 90.73 ft bgs

MW-503B-0507

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

**GROUNDWATER SAMPLING FORM**

 Site Name : Former FENCO Refinery  
 Project Number : BW-54205  
 Recorded by : Muthu Zein

 Well Number MW-504  
 Well Type: Monitor Extraction Other:  
 Date: 5.11.17 Time: 1005
**WELL PURGING**
**PURGE VOLUME**

Casing Diameter (D in inches)

 2-inch  4-inch  6-inch  Other \_\_\_\_\_

 Total Depth of Casing (TD in feet BTOC) 96.30

 Water Level Depth (WL in feet BTOC) : 90.69

Number Of Well Volumes to be Purged (# Vols)

 4      5      10       Other 3
**PURGE METHOD**

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

 Other Type Vacuum Truck
**PURGE VOLUME CALCULATION**

$$\left( \frac{96.30 - 90.69}{\text{TD (feet)}} \times \frac{2}{\text{D (inches)}} \times \frac{0.0408}{\# \text{ Vols}} \right) = \frac{3.65}{\text{Calculated Purge Volume}} \text{ gallons}$$

0.65

**VOLUME GENERATED**
12.5 gallons

**PURGE TIME**
1036 Start 1138 Stop 32 Elapsed

**PURGE RATE**

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

**CONTROLLER SETTING**
**FIELD PARAMETER MEASUREMENT**

Average purge rate = 0.39 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or ppm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1016	4	24.83	7.89	1.37	5.03	64	642	
1021	8	22.31	7.97	1.48	5.16	65	154	
110h	12	22.85	7.92	1.50	5.44	88	123	

 - with some turbidity  
 - Measure EC after turned

(6W (the gathered))

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

 Discharge Water Disposal: Onsite treated facility
**WELL SAMPLING**
**SAMPLING METHOD**

Sample at 80% (Minimum recharge)

(Sample Turbidity &lt; 5 NTU)

 Bailer Type: Disposable

 Sampling Time (80%) Recharge: 1135

 Depth to Water: 91.75 ↳ bgs.

MW-504-0504

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

### GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery  
 Project Number : B0054205  
 Recorded by : Mohit Jain

Well Number MW- 604  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 05.08.17 Time: 1125

#### WELL PURGING

##### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch  4-inch  6-inch  Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 103.20

Water Level Depth (WL in feet BTOC) 101.28

Number Of Well Volumes to be Purged (# Vols)

4      5      10       Other 3

##### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other Type Vacuum Tank

##### PURGE VOLUME CALCULATION

$$\frac{(103.2 - 101.28) \times 2}{D(\text{inches})} \times \frac{\# \text{ Vols}}{0.65} = \frac{1.25}{\text{Calculated Purge Volume}} \text{ gallons}$$

2 gallons

##### PURGE TIME

1130 Start 1137 Stop 7 Elapsed

##### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

##### FIELD PARAMETER MEASUREMENT

Average purge rate = ~2.29 gpm.

Sample was slightly turbid with strong HC odor.

Major HC odor

Time	Volume (gallons)	Temp <u>74</u> °C	pH	EC (ms/cm or <del>mg/L</del> )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1133	1.5	25.96	7.45	2.62	2.66	9	857	
				(N/A)				
				(N/A)				
				(N/A)				
				(N/A)				
				(N/A)				
				(N/A)				

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal:

WU1 dried out after 1 volume.

#### WELL SAMPLING

MW- 604- 05-17

##### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1530

Depth to Water: 101.57 ft bgs

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery  
 Project Number : B0054205  
 Recorded by : Mihir Zin

Well Number MW-605  
 Well Type Monitor Extraction Other: \_\_\_\_\_  
 Date: 05-08-07 Time: 0850

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch 4-inch 6-inch Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 92.90

Water Level Depth (WL in feet BTOC) 85.54

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

#### PURGE METHOD

Baller - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other-Type Vacuum Trunk

#### PURGE VOLUME CALCULATION

$$\frac{(92.90 - 85.54) \times 2 \times 3}{D(\text{inches}) \times \# \text{ Vols}} \times 0.0408 = \frac{4.78}{\text{Calculated Purge Volume}}$$

30 gallons

#### PURGE TIME

0853 Start 0914 Stop 21 Elapsed

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

Average Purge rate = 1.43 gpm

#### VOLUME GENERATED

Time	Volume (gallons)	Temp $^{\circ}\text{F}$ $^{\circ}\text{C}$	pH	EC (ms/cm or $\mu\text{s/cm}$ )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0857	5	23.54	7.83	2.26	4.12	228	137	1
0902	10	22.68	7.97	2.26	4.70	221	92.7	
0903	15	22.36	8.03	2.39	4.29	214	38.1	
0906	20	22.43	8.07	2.28	4.82	214	35.3	
0910	25	22.48	8.17	2.27	4.92	208	16.6	
0914	30	22.71	8.02	2.36	4.31	217	4.62	

Duplication +

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal: Soil treatment facility

Sample for biological parameters.

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type: Disposable

Sampling Time (80%) Recharge: 0930

Depth to Water: 85.54 ft bog

MW-605-0507 (+ Duplication)

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery  
 Project Number : B0054215  
 Recorded by : Maher Zain

Well Number MW-606  
 Well Type Monitor Extraction Other: \_\_\_\_\_  
 Date: 5-08-07 Time: 0730

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch     4-inch    6-inch    Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 99.19

Water Level Depth (WL in feet BTOC) 88.40

Number Of Well Volumes to be Purged (# Vols)

4    5    10     Other 3

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible    Centrifugal    Bladder

Other-Type Vacuum Truck

#### PURGE VOLUME CALCULATION

$$\frac{99.19 - 88.40}{TD \text{ (feet)}} \times \frac{x}{WL \text{ (feet)}} \times \frac{^2}{D \text{ (inches)}} \times \frac{0.0408}{\# \text{ Vols}} = \frac{7.01}{\text{Calculated Purge Volume}} \text{ gallons}$$

43 gallons

#### PURGE TIME

0739 Start 0818 Stop 0819 Elapsed

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### CONTROLLER SETTING

#### FIELD PARAMETER MEASUREMENT

Average Purge rate = 1.10 gpm.

Time	Volume (gallons)	Temp °F/°C	pH	EC (ms/cm or <del>microsiemens</del> )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0744	7	21.37	6.97	2.25	4.45	267	260	1
0749	14	22.25	7.49	2.44	5.72	233	108	1
0755	21	22.29	7.37	2.20	4.91	218	75.2	1
0803	28	22.42	8.00	2.09	5.18	191	76.2	1
0811	35	22.76	8.07	1.93	4.72	192	90.8	1
0817	42	22.53	8.09	1.94	4.71	192	57.1	1

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal: Drilled Lateral Facility Sampled for background parameters.

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 0830

Depth to Water : 88.5 ft 10 ft

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery  
 Project Number : 80054225  
 Recorded by : Maher Zein

Well Number MW- 607  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 05.08.07 Time: 1005

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch  4-inch  6-inch  Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 106.87

Water Level Depth (WL in feet BTOC) 99.61

Number Of Well Volumes to be Purged (# Vols)

4      5      10       Other 3

#### PURGE VOLUME CALCULATION

$$\frac{(106.87 - 99.61) \times 2}{D(\text{inches})} \times \frac{\# \text{ Vols}}{0.65} \times 0.0408 = \frac{4.72}{\text{Calculated Purge Volume}} \text{ gallons}$$

26 gallons

#### PURGE TIME

1015 Start 1043 Stop 28 Elapsed

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm

#### CONTROLLER SETTING

Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

Average Purge rate = 0.89 gpm

Time	Volume (gallons)	Temp °C	pH	EC (ms/cm or <del>µmho</del> )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1020	5	24.25	7.91	2.46	4.33	106	49.4	1
1025	10	23.13	8.02	2.48	4.81	107	11.5	
1031	15	23.44	8.00	2.58	4.38	113	11.3	
1036	20	23.12	8.03	2.63	4.36	119	14.6	
1042	25	23.53	7.96	2.59	4.76	113	17.2	
—	—	—	—	—	—	—	—	—

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal: Onsite Treatment Facility Turbidity not decreasing to <5 NTU.

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type :  Disposable

Sampling Time (80%) Recharge: 1050

Depth to Water : 99.55 m bgs

MW- 607-0507

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

**GROUNDWATER SAMPLING FORM**

Site Name : Former ENCI Refinery  
 Project Number : B0554205  
 Recorded by : Mehar Zein

Well Number EW-1  
 Well Type Monitor Extraction Other:  
 Date: 05.10.07 Time: 1443

**WELL PURGING**
**PURGE VOLUME**

Casing Diameter (D in inches) \_\_\_\_\_

2-inch  4-inch 6-inch Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 112.28

Water Level Depth (WL in feet BTOC) 97.88

Number Of Well Volumes to be Purged (# Vols)

4      5      10       Other 3

**PURGE METHOD**

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other Type Vacuum Truck

**PURGE VOLUME CALCULATION**

$$\frac{(112.28 - 97.88)}{\text{TD (feet)}} \times \frac{2 \times}{\text{D (inches)}} \times \frac{0.0408}{\# \text{ Vols}} = \frac{9.36}{\text{Calculated Purge Volume}}$$

0.65

gallons

VOLUME GENERATED

30 gallons

**PURGE TIME**

144 Start 153 Stop 56 Elapsed

**PURGE RATE**

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

**FIELD PARAMETER MEASUREMENT**

Time	Volume (gallons)	Temp (°F/C)	pH	EC (ms/cm or $\mu\text{mho}$ )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1503	10	25.68	7.94	1.88	4.31	-287	105	
151h	20	24.43	8.03	1.92	4.58	-291	112	
152h	25	23.41	8.08	1.91	3.21	-296	108	
153h	30	23.74	7.99	1.89	2.71	-294	97.9	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):  
 Discharge Water Disposal: Onsite treatment facility

Show purge rate, 144 gpm

Low, make air  
aspirate.

Water is just  
through.

Strong

**WELL SAMPLING**

EW-1-0507

**SAMPLING METHOD**

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type: Disposable

Sampling Time (80%) Recharge: 155

Depth to Water: 97.9 to by

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery  
 Project Number : B0354205  
 Recorded by : Mahir Zain

Well Number W-1  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 05.10.07 Time: 1345

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch  4-inch 6-inch Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 129.64

Water Level Depth (WL in feet BTOC) 100.11

Number Of Well Volumes to be Purged (# Vols)

4      5      10       Other 3

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other Type Vacuum Truck

#### PURGE VOLUME CALCULATION

$$\left( \frac{129.64 - 100.11}{\text{TD (feet)}} \times \frac{2}{\text{WL (feet)}} \times \frac{\pi}{\text{D (inches)}} \times \text{# Vols} \right) \times 0.0408 = \frac{19.19}{\text{Calculated Purge Volume}} \text{ gallons}$$

0.65

62 gallons

PURGE TIME  
1345 Start 1400 Stop 26 Elapsed

PURGE RATE  
 Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

Average purge rate 2.38 gpm

#### FIELD PARAMETER MEASUREMENT

Time	Volume (gallons)	Temp (°F/°C)	pH	EC (ms/cm or $\mu$ siemens)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1352	20	25.52	7.53	2.71	5.73	-67	23.7	
1400	40	24.56	7.64	2.77	4.31	-66	18.6	
1409	60	24.61	7.63	2.75	3.86	-65	4.7	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal:

Onsite treatment facility Clear, high flow, fast recharge

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type: Disposable

Sampling Time (80%) Recharge: 1420

Depth to Water: 100.43 ft bgs

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former CFNCO Refinery  
 Project Number : B0054205  
 Recorded by : Mahar Zain

Well Number W-3A  
 Well Type Monitor Extraction Other:  
 Date: 05.10.21 Time: 11:51

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch 4-inch 3-inch Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 112.43

Water Level Depth (WL in feet BTOC) 100.04

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other Type Vacuum Truck

#### PURGE VOLUME CALCULATION

$$\frac{(112.43 - 100.04)}{TD \text{ (feet)}} \times \frac{2}{D \text{ (inches)}} \times 0.0408 = \frac{6.75}{\text{Calculated Purge Volume}}$$

↓ 65

36 gallons

gallons

Start 1300 Stop 26 Elapsed Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm

Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

Average purge rate = 1.38 gpm.

Time	Volume (gallons)	Temp (°F/°C)	pH	EC (ms/cm or $\mu\text{s/cm}$ )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1230	7	25.32	7.45	3.35	4.71	-63	357	
1244	14	23.92	7.36	3.23	4.83	-131	169	
1248	21	23.35	7.36	3.24	5.36	-161	139	
1253	28	23.68	7.33	3.22	5.25	-168	199	
1258	35	23.79	7.31	3.23	5.59	-171	11	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal: On-site treatment facility

Slight HC odor ~~sheen~~, like HC.

② Light sheen

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type: Disposable

Sampling Time (80%) Recharge: 1310

Depth to Water: 100.65 ft long.

W-3A-0507

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former GENCO Refinery  
 Project Number : B0054265  
 Recorded by : Mahan Zain

Well Number W-4  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 05.10.07 Time: 1200

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch  4-inch  6-inch  Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 129.62

Water Level Depth (WL in feet BTOC) (10).36

Number Of Well Volumes to be Purged (# Vols)

4      5      10       Other 3

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible      Centrifugal      Bladder

Other Type Vacuum Truck

#### PURGE VOLUME CALCULATION

$$\left( \frac{129.62 - 101.36}{\text{TD (feet)}} \right) \times \frac{2}{\text{D (inches)}} \times \frac{X}{\# \text{ Vols}} \times 0.0408 = \frac{18.37}{\text{Calculated Purge Volume}} \text{ gallons}$$

#### VOLUME GENERATED

78 gallons

#### PURGE TIME

1023 Start 1039 Stop 36 Elapsed

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### CONTROLLER SETTING

#### FIELD PARAMETER MEASUREMENT

Average purge rate = 2.17 gpm

Time	Volume (gallons)	Temp $^{\circ}\text{F}$	pH	EC (ms/cm or $\mu\text{s}/\text{cm}$ )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1031	19	23.13	7.64	2.44	6.25	-41	46.4	
1039	38	22.67	7.66	2.53	5.94	-36	87.0	
1048	57	23.22	7.65	2.52	5.64	-27	30.9	
1058	76	23.59	7.75	2.47	6.29	-22	50.9	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal: Inside treatment facility

### WELL SAMPLING

#### SAMPLING METHOD

W-4 - 0507

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type: Disposable

Sampling Time (80%) Recharge: 1110

Depth to Water: 105.95 ft b.g.

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Farm CENW Rel. no. 1  
 Project Number : RJ5420B  
 Recorded by : Mahesh Zain

Well Number W-7  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 05.08.07 Time: 1330

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch    4-inch    6-inch    Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) N/A Measured

Water Level Depth (WL in feet BTOC) : 82.85

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other \_\_\_\_\_

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible    Centrifugal    Bladder

Other - Type Not purged production well

#### PURGE VOLUME CALCULATION

$$\frac{(\text{TD (feet)} - \text{WL (feet)})}{\text{D (inches)}} \times \pi \times \frac{\text{D}^2}{4} \times \text{# Vols} \times 0.0408 = \text{Calculated Purge Volume} \text{ gallons}$$

#### VOLUME GENERATED

#### PURGE TIME

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

Time	Volume (gallons)	Temp (F)	pH	EC (ms/cm or $\mu$ s/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) : \_\_\_\_\_

Discharge Water Disposal: NA

NA

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1330

Depth to Water: 82.85 ft bgs

W-7-0507

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former SENCO Refinery  
 Project Number : B-54205  
 Recorded by : Mehar Zain

Well Number W-8  
 Well Type: Monitor Extraction Other:  
 Date: 05.08.17 Time: 15:01

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch    4-inch    6-inch    Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) Not Measured

Water Level Depth (WL in feet BTOC) : 62.96

Number Of Well Volumes to be Purged (# Vols)

4    5    10    Other \_\_\_\_\_

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible    Centrifugal    Bladder

Other -Type N-sb purged, pressurized  
well

#### PURGE VOLUME CALCULATION

$$(\frac{TD \text{ (feet)}}{WL \text{ (feet)}}) \times \frac{\pi}{4} \times D^2 \text{ (inches)} \times \text{# Vols} \times 0.0408 = \text{Calculated Purge Volume} \text{ gallons}$$

\_\_\_\_\_ = gallons

#### PURGE TIME

Start \_\_\_\_\_ Stop \_\_\_\_\_ Elapsed \_\_\_\_\_

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### CONTROLLER SETTING

#### FIELD PARAMETER MEASUREMENT

Time	Volume (gallons)	Temp (F)	pH	EC (ms/cm or $\mu\text{s}/\text{cm}$ )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: NA

NA

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 15:10

Depth to Water : 62.96 ft bgs

W-8-05-17

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refining  
 Project Number : B0054205  
 Recorded by : Melvin Zain

Well Number W-9  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 05.09.07 Time: 0720

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch     4-inch     6-inch     Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 110.07

Water Level Depth (WL in feet BTOC) : 84.35

Number Of Well Volumes to be Purged (# Vols)

4    5    10     Other 3

#### PURGE METHOD

Bailer - Type \_\_\_\_\_

Submersible     Centrifugal     Bladder

Other-Type Vacuum Truck

#### PURGE VOLUME CALCULATION

$$\frac{(TD \text{ (feet)} - WL \text{ (feet)})}{D \text{ (inches)}} \times \# \text{ Vols} = \frac{110.07 - 84.35}{2} \times 3 = 16.72 \text{ gallons}$$

~~TD - WL~~ ~~# Vols~~

#### VOLUME GENERATED

25 gallons

#### PURGE TIME

0731 Start 0754 Stop 0742 Elapsed

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

Average purge rate = 1.09 gpm

Time	Volume (gallons)	Temp °F/C	pH	EC (ms/cm or <del>volt/cm</del> )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0731	4	23.58	7.53	2.59	4.61	168	712	
0739	8	24.02	7.76	2.82	4.28	142	514	
0742	12	24.24	7.80	2.82	4.32	124	358	
0745	16	24.57	7.82	2.75	4.39	122	73	
0748	20	24.30	7.78	2.69	4.88	123	30.3	
0752	24	24.61	7.75	2.68	4.13	132	32.9	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal:

*Boiled Sample was sitting.*

### WELL SAMPLING

#### SAMPLING METHOD

W-9-0507

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 08-5

Depth to Water: 84.44 ft 20s

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery  
 Project Number : Basshuas  
 Recorded by : Mohor Zain

Well Number W-10  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 05.11.21 Time: 0825

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch    4-inch    6-inch    Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 129.82

Water Level Depth (WL in feet BTOC) 87.60

Number Of Well Volumes to be Purged (# Vols)

4    5    10     Other 3

#### PURGE VOLUME CALCULATION

$$\frac{(129.82 - 87.60) \times \frac{2}{\pi}^2}{TD \text{ (feet)}} \times \frac{\pi}{D \text{ (inches)}} \times 0.0408 = \frac{3.63}{\text{Calculated Purge Volume}} \text{ gallons}$$

#### VOLUME GENERATED

25 gallons

#### PURGE TIME

0847 Start 0914 Stop 27 Elapsed

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### FIELD PARAMETER MEASUREMENT

Average Purge rate = 1.93 gpm

Time	Volume (gallons)	Temp	pH	EC (ms/cm or $\mu$ siemens)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0852	4	20.71	7.67	2.35	5.47	-138	557	
0854	8	22.15	7.61	2.41	6.20	-182	109	
0900	12	21.47	7.60	2.39	5.92	-198	70.3	
0904	16	22.52	7.56	2.36	5.35	-197	43.4	
0904	20	22.33	7.59	2.35	5.75	-198	41.1	
0913	24	22.75	7.58	2.34	5.74	-192	32.9	

Sample had a strong AC odor.

water was yellowish

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal: Outside building

Discharge sample, yellowish

### WELL SAMPLING

W-10-0547 + D

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type: Disposable

Sampling Time (80%) Recharge: 0.925

Depth to Water: 87.80 ± 20 cm

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

## GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery  
 Project Number : B0054205  
 Recorded by : Muham Zain

Well Number W-11  
 Well Type: Monitor Extraction Other: \_\_\_\_\_  
 Date: 25.09.07 Time: 1350

### WELL PURGING

#### PURGE VOLUME

Casing Diameter (D in inches) \_\_\_\_\_

2-inch 4-inch 6-inch Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 112.30

Water Level Depth (WL in feet BTOC) 90.60

Number Of Well Volumes to be Purged (# Vols)

4      5      10      Other 3

#### PURGE VOLUME CALCULATION

$$\frac{(112.3 - 90.6)}{\text{TD (feet)}} \times \frac{2}{\text{WL (feet)}} \times \frac{1}{\text{D (inches)}} \times \frac{1}{\text{# Vols}} \times 0.0408 = \frac{3.54}{\text{Calculated Purge Volume}} \text{ gallons}$$

26 gallons

#### PURGE TIME

1355 Start 1417 Stop 22 Elapsed

#### PURGE RATE

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

#### CONTROLLER SETTING

#### FIELD PARAMETER MEASUREMENT

Average purge rate: 1.18 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or <del>µmho</del> )	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1400	4	25.66	7.59	1.92	4.75	127	>999	
1402	8	24.38	7.54	2.32	4.19	95	52	
1405	12	24.52	7.57	2.22	5.53	85	208	
1412	20	24.29	7.56	2.21	5.13	96	7.8	
1416	24	23.95	7.57	2.16	5.00	93	3.8	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc): \_\_\_\_\_

Discharge Water Disposal: On the treatment facility

### WELL SAMPLING

#### SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type: Disposable

Sampling Time (80%) Recharge: 1435

Depth to Water: 90.60 41 bgs

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

**GROUNDWATER SAMPLING FORM**

Site Name : Former GENCO Refinery  
 Project Number : Box 5L2.5  
 Recorded by : Maher Zein

Well Number W-12  
 Well Type: Monitor Extraction Other:  
 Date: 25.09.07 Time: 0835

**WELL PURGING**
**PURGE VOLUME**

Casing Diameter (D in inches) \_\_\_\_\_

2-inch    4-inch    6-inch    Other \_\_\_\_\_

Total Depth of Casing (TD in feet BTOC) 115.9

Water Level Depth (WL in feet BTOC) 93.44

Number Of Well Volumes to be Purged (# Vols)

4    5    10     Other 3

**PURGE METHOD**

Bailer - Type \_\_\_\_\_

Submersible    Centrifugal    Bladder

Other Type Vacuum Truck

**PURGE VOLUME CALCULATION**

$$(\frac{TD \text{ (feet)}}{WL \text{ (feet)}} - \frac{93.44}{}) \times \frac{2}{D \text{ (inches)}} \times \frac{2}{# \text{ Vols}} \times 0.0408 = \frac{3.67}{\text{Calculated Purge Volume}} \text{ gallons}$$

**VOLUME GENERATED**

25 gallons

**PURGE TIME**

0832 Start 0858 Stop 26 Elapsed

**PURGE RATE**

Initial \_\_\_\_\_ gpm Final \_\_\_\_\_ gpm Initial \_\_\_\_\_ Hz Final \_\_\_\_\_ Hz

**FIELD PARAMETER MEASUREMENT**

Average purge rate = 0.96 gpm.

Time	Volume (gallons)	Temp (°F/°C)	pH	EC (mS/cm or µmho)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0837	4	22.41	7.78	2.38	3.90	63	>999	
0841	8	22.70	7.78	2.58	4.21	66	757	
0845	12	22.88	7.76	2.45	6.23	68	411	
0849	16	22.69	7.76	2.39	4.68	71	159	
0853	20	22.66	7.76	2.37	4.51	72	73.9	
0856	24	22.83	7.74	2.34	5.96	76	41.4	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: On-site treatment facility

**WELL SAMPLING**
**SAMPLING METHOD**

W-12-0507

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 0910

Depth to Water : 93.60 ft 2 m

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

**Appendix C**

Laboratory Analytical Data

## LABORATORY REPORT

Prepared For: Arcadis - Blasland, Bouck & Lee  
3240 El Camino Real, Suite 200  
Irvine, CA 92602

Attention: Jennifer Wiley

Project: Former Cenco Refinery - 2006  
54205.001

Sampled: 05/08/07  
Received: 05/08/07  
Issued: 05/17/07 15:39

NELAP #01108CA California ELAP#1197 CSDLAC #10256

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.*

*This entire report was reviewed and approved for release.*

## SAMPLE CROSS REFERENCE

LABORATORY ID	CLIENT ID	MATRIX
IQE0810-01	TB-050807	Water
IQE0810-02	MW_606_0507	Water
IQE0810-03	MW_605_0507	Water
IQE0810-04	MW_605_0507D	Water
IQE0810-05	MW_607_0507	Water
IQE0810-06	MW_104A_0507	Water
IQE0810-07	W_7_0507	Water
IQE0810-08	W_8_0507	Water
IQE0810-09	MW_604_0507	Water

Reviewed By:



TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

Arcadis - Blasland, Bouck & Lee  
3240 El Camino Real, Suite 200  
Irvine, CA 92602  
Attention: Jennifer Wiley

Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE FUEL HYDROCARBONS (EPA 5030/8015M)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Date Qualifiers
<b>Sample ID: IQE0810-01 (TB-050807 - Water)</b>								<b>Sampled: 05/08/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E14050	30	50	ND	1	05/14/07	05/14/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0810-02 (MW_606_0507 - Water)</b>								<b>Sampled: 05/08/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E14050	30	50	ND	1	05/14/07	05/14/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0810-03 (MW_605_0507 - Water)</b>								<b>Sampled: 05/08/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E14050	30	50	35	1	05/14/07	05/14/07	J
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0810-04 (MW_605_0507D - Water)</b>								<b>Sampled: 05/08/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E14050	30	50	38	1	05/14/07	05/14/07	J
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0810-05 (MW_607_0507 - Water)</b>								<b>Sampled: 05/08/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E14050	150	250	330	5	05/14/07	05/14/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0810-06 (MW_104A_0507 - Water)</b>								<b>Sampled: 05/08/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E15026	30	50	33	1	05/15/07	05/15/07	J
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0810-07 (W_7_0507 - Water)</b>								<b>Sampled: 05/08/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E15026	30	50	31	1	05/15/07	05/15/07	J
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0810-08 (W_8_0507 - Water)</b>								<b>Sampled: 05/08/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E15026	30	50	110	1	05/15/07	05/15/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

Arcadis - Blasland, Bouck & Lee  
3240 El Camino Real, Suite 200  
Irvine, CA 92602  
Attention: Jennifer Wiley

Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE FUEL HYDROCARBONS (EPA 5030/8015M)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-09 (MW_604_0507 - Water)</b>								<b>Sampled: 05/08/07</b>	
Reporting Units: ug/l									
GRO (C4 - C12)	EPA 8015B	7E15026	30	50	480	1	05/15/07	05/15/07	
Surrogate: 4-BFB (FID) (65-140%)								135 %	

Arcadis - Blasland, Bouck & Lee  
3240 El Camino Real, Suite 200  
Irvine, CA 92602  
Attention: Jennifer Wiley

Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-01 (TB-050807 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
Bromobenzene	EPA 8260B	7E09013	0.27	5.0	ND	1	05/09/07	05/09/07	
Bromochloromethane	EPA 8260B	7E09013	0.32	5.0	ND	1	05/09/07	05/09/07	
Bromodichloromethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
Bromoform	EPA 8260B	7E09013	0.40	5.0	ND	1	05/09/07	05/09/07	
Bromomethane	EPA 8260B	7E09013	0.42	5.0	ND	1	05/09/07	05/09/07	
n-Butylbenzene	EPA 8260B	7E09013	0.37	5.0	ND	1	05/09/07	05/09/07	
sec-Butylbenzene	EPA 8260B	7E09013	0.25	5.0	ND	1	05/09/07	05/09/07	
tert-Butylbenzene	EPA 8260B	7E09013	0.22	5.0	ND	1	05/09/07	05/09/07	
Carbon tetrachloride	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
Chlorobenzene	EPA 8260B	7E09013	0.36	2.0	ND	1	05/09/07	05/09/07	
Chloroethane	EPA 8260B	7E09013	0.40	5.0	ND	1	05/09/07	05/09/07	
Chloroform	EPA 8260B	7E09013	0.33	2.0	ND	1	05/09/07	05/09/07	
Chloromethane	EPA 8260B	7E09013	0.40	5.0	ND	1	05/09/07	05/09/07	
2-Chlorotoluene	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
4-Chlorotoluene	EPA 8260B	7E09013	0.29	5.0	ND	1	05/09/07	05/09/07	
Dibromochloromethane	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E09013	0.97	5.0	ND	1	05/09/07	05/09/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E09013	0.40	2.0	ND	1	05/09/07	05/09/07	
Dibromomethane	EPA 8260B	7E09013	0.36	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichlorobenzene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
1,3-Dichlorobenzene	EPA 8260B	7E09013	0.35	2.0	ND	1	05/09/07	05/09/07	
1,4-Dichlorobenzene	EPA 8260B	7E09013	0.37	2.0	ND	1	05/09/07	05/09/07	
Dichlorodifluoromethane	EPA 8260B	7E09013	0.79	5.0	ND	1	05/09/07	05/09/07	
1,1-Dichloroethane	EPA 8260B	7E09013	0.27	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichloroethane	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
1,1-Dichloroethene	EPA 8260B	7E09013	0.42	5.0	ND	1	05/09/07	05/09/07	
cis-1,2-Dichloroethene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
trans-1,2-Dichloroethene	EPA 8260B	7E09013	0.27	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichloropropane	EPA 8260B	7E09013	0.35	2.0	ND	1	05/09/07	05/09/07	
1,3-Dichloropropane	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
2,2-Dichloropropane	EPA 8260B	7E09013	0.34	2.0	ND	1	05/09/07	05/09/07	
1,1-Dichloropropene	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
cis-1,3-Dichloropropene	EPA 8260B	7E09013	0.22	2.0	ND	1	05/09/07	05/09/07	
trans-1,3-Dichloropropene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
Ethylbenzene	EPA 8260B	7E09013	0.25	2.0	ND	1	05/09/07	05/09/07	
Hexachlorobutadiene	EPA 8260B	7E09013	0.38	5.0	ND	1	05/09/07	05/09/07	
Isopropylbenzene	EPA 8260B	7E09013	0.25	2.0	ND	1	05/09/07	05/09/07	
p-Isopropyltoluene	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
Methylene chloride	EPA 8260B	7E09013	0.95	5.0	ND	1	05/09/07	05/09/07	
Naphthalene	EPA 8260B	7E09013	0.41	5.0	ND	1	05/09/07	05/09/07	

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

Arcadis - Blasland, Bouck & Lee  
 3240 El Camino Real, Suite 200  
 Irvine, CA 92602  
 Attention: Jennifer Wiley

Project ID: Former Cenex Refinery - 2006  
 54205.001  
 Report Number: IQE0810

Sampled: 05/08/07  
 Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-01 (TB-050807 - Water) - cont.</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E09013	0.27	2.0	ND	1	05/09/07	05/09/07	
Styrene	EPA 8260B	7E09013	0.16	2.0	ND	1	05/09/07	05/09/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E09013	0.27	5.0	ND	1	05/09/07	05/09/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E09013	0.24	2.0	ND	1	05/09/07	05/09/07	
Tetrachloroethene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
Toluene	EPA 8260B	7E09013	0.36	2.0	ND	1	05/09/07	05/09/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E09013	0.30	5.0	ND	1	05/09/07	05/09/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E09013	0.48	5.0	ND	1	05/09/07	05/09/07	
1,1,1-Trichloroethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
1,1,2-Trichloroethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
Trichloroethene	EPA 8260B	7E09013	0.26	2.0	ND	1	05/09/07	05/09/07	
Trichlorofluoromethane	EPA 8260B	7E09013	0.34	5.0	ND	1	05/09/07	05/09/07	
1,2,3-Trichloropropane	EPA 8260B	7E09013	0.40	10	ND	1	05/09/07	05/09/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E09013	0.23	2.0	ND	1	05/09/07	05/09/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E09013	0.26	2.0	ND	1	05/09/07	05/09/07	
Vinyl chloride	EPA 8260B	7E09013	0.30	5.0	ND	1	05/09/07	05/09/07	
o-Xylene	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
m,p-Xylenes	EPA 8260B	7E09013	0.60	2.0	ND	1	05/09/07	05/09/07	
Xylenes, Total	EPA 8260B	7E09013	0.90	4.0	ND	1	05/09/07	05/09/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E09013	0.25	5.0	ND	1	05/09/07	05/09/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E09013	0.33	5.0	ND	1	05/09/07	05/09/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E09013	0.32	5.0	ND	1	05/09/07	05/09/07	
tert-Butanol (TBA)	EPA 8260B	7E09013	4.9	50	ND	1	05/09/07	05/09/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					95 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					101 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					95 %				

TestAmerica - Irvine, CA  
 Sushmitha Reddy  
 Project Manager

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Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-02 (MW_606_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	TE09013	0.28	2.0	ND	1	05/09/07	05/09/07	
Bromobenzene	EPA 8260B	TE09013	0.27	5.0	ND	1	05/09/07	05/09/07	
Bromochloromethane	EPA 8260B	TE09013	0.32	5.0	ND	1	05/09/07	05/09/07	
Bromodichloromethane	EPA 8260B	TE09013	0.30	2.0	ND	1	05/09/07	05/09/07	
Bromoform	EPA 8260B	TE09013	0.40	5.0	ND	1	05/09/07	05/09/07	
Bromomethane	EPA 8260B	TE09013	0.42	5.0	ND	1	05/09/07	05/09/07	
n-Butylbenzene	EPA 8260B	TE09013	0.37	5.0	ND	1	05/09/07	05/09/07	
sec-Butylbenzene	EPA 8260B	TE09013	0.25	5.0	ND	1	05/09/07	05/09/07	
tert-Butylbenzene	EPA 8260B	TE09013	0.22	5.0	ND	1	05/09/07	05/09/07	
Carbon tetrachloride	EPA 8260B	TE09013	0.28	5.0	ND	1	05/09/07	05/09/07	
Chlorobenzene	EPA 8260B	TE09013	0.36	2.0	ND	1	05/09/07	05/09/07	
Chloroethane	EPA 8260B	TE09013	0.40	5.0	ND	1	05/09/07	05/09/07	
<b>Chloroform</b>	EPA 8260B	TE09013	0.33	2.0	<b>2.2</b>	1	05/09/07	05/09/07	
Chloromethane	EPA 8260B	TE09013	0.40	5.0	ND	1	05/09/07	05/09/07	
2-Chlorotoluene	EPA 8260B	TE09013	0.28	5.0	ND	1	05/09/07	05/09/07	
4-Chlorotoluene	EPA 8260B	TE09013	0.29	5.0	ND	1	05/09/07	05/09/07	
Dibromochloromethane	EPA 8260B	TE09013	0.28	2.0	ND	1	05/09/07	05/09/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE09013	0.97	5.0	ND	1	05/09/07	05/09/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE09013	0.40	2.0	ND	1	05/09/07	05/09/07	
Dibromomethane	EPA 8260B	TE09013	0.36	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichlorobenzene	EPA 8260B	TE09013	0.32	2.0	ND	1	05/09/07	05/09/07	
1,3-Dichlorobenzene	EPA 8260B	TE09013	0.35	2.0	ND	1	05/09/07	05/09/07	
1,4-Dichlorobenzene	EPA 8260B	TE09013	0.37	2.0	ND	1	05/09/07	05/09/07	
Dichlorodifluoromethane	EPA 8260B	TE09013	0.79	5.0	ND	1	05/09/07	05/09/07	
1,1-Dichloroethane	EPA 8260B	TE09013	0.27	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichloroethane	EPA 8260B	TE09013	0.28	2.0	ND	1	05/09/07	05/09/07	
1,1-Dichloroethene	EPA 8260B	TE09013	0.42	5.0	ND	1	05/09/07	05/09/07	
cis-1,2-Dichloroethene	EPA 8260B	TE09013	0.32	2.0	ND	1	05/09/07	05/09/07	
trans-1,2-Dichloroethene	EPA 8260B	TE09013	0.27	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichloropropane	EPA 8260B	TE09013	0.35	2.0	ND	1	05/09/07	05/09/07	
1,3-Dichloropropane	EPA 8260B	TE09013	0.32	2.0	ND	1	05/09/07	05/09/07	
2,2-Dichloropropane	EPA 8260B	TE09013	0.34	2.0	ND	1	05/09/07	05/09/07	
1,1-Dichloropropene	EPA 8260B	TE09013	0.28	2.0	ND	1	05/09/07	05/09/07	
cis-1,3-Dichloropropene	EPA 8260B	TE09013	0.22	2.0	ND	1	05/09/07	05/09/07	
trans-1,3-Dichloropropene	EPA 8260B	TE09013	0.32	2.0	ND	1	05/09/07	05/09/07	
Ethylbenzene	EPA 8260B	TE09013	0.25	2.0	ND	1	05/09/07	05/09/07	
Hexachlorobutadiene	EPA 8260B	TE09013	0.38	5.0	ND	1	05/09/07	05/09/07	
Isopropylbenzene	EPA 8260B	TE09013	0.25	2.0	ND	1	05/09/07	05/09/07	
p-Isopropyltoluene	EPA 8260B	TE09013	0.28	2.0	ND	1	05/09/07	05/09/07	
Methylene chloride	EPA 8260B	TE09013	0.95	5.0	ND	1	05/09/07	05/09/07	
Naphthalene	EPA 8260B	TE09013	0.41	5.0	ND	1	05/09/07	05/09/07	

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-02 (MW_606_0507 - Water) - cont.</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E09013	0.27	2.0	ND	1	05/09/07	05/09/07	
Styrene	EPA 8260B	7E09013	0.16	2.0	ND	1	05/09/07	05/09/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E09013	0.27	5.0	ND	1	05/09/07	05/09/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E09013	0.24	2.0	ND	1	05/09/07	05/09/07	
Tetrachloroethene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
Toluene	EPA 8260B	7E09013	0.36	2.0	ND	1	05/09/07	05/09/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E09013	0.30	5.0	ND	1	05/09/07	05/09/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E09013	0.48	5.0	ND	1	05/09/07	05/09/07	
1,1,1-Trichloroethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
1,1,2-Trichloroethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
Trichloroethene	EPA 8260B	7E09013	0.26	2.0	ND	1	05/09/07	05/09/07	
<b>Trichlorofluoromethane</b>	EPA 8260B	7E09013	0.34	5.0	<b>3.5</b>	1	05/09/07	05/09/07	J
1,2,3-Trichloropropane	EPA 8260B	7E09013	0.40	10	ND	1	05/09/07	05/09/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E09013	0.23	2.0	ND	1	05/09/07	05/09/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E09013	0.26	2.0	ND	1	05/09/07	05/09/07	
Vinyl chloride	EPA 8260B	7E09013	0.30	5.0	ND	1	05/09/07	05/09/07	
o-Xylene	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
m,p-Xylenes	EPA 8260B	7E09013	0.60	2.0	ND	1	05/09/07	05/09/07	
Xylenes, Total	EPA 8260B	7E09013	0.90	4.0	ND	1	05/09/07	05/09/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E09013	0.25	5.0	ND	1	05/09/07	05/09/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E09013	0.33	5.0	ND	1	05/09/07	05/09/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E09013	0.32	5.0	ND	1	05/09/07	05/09/07	
tert-Butanol (TBA)	EPA 8260B	7E09013	4.9	50	ND	1	05/09/07	05/09/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					94 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					100 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					94 %				

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Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-03 (MW_605_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	TE09013	0.28	2.0	ND	1	05/09/07	05/09/07	
Bromobenzene	EPA 8260B	TE09013	0.27	5.0	ND	1	05/09/07	05/09/07	
Bromochloromethane	EPA 8260B	TE09013	0.32	5.0	ND	1	05/09/07	05/09/07	
Bromodichloromethane	EPA 8260B	TE09013	0.30	2.0	ND	1	05/09/07	05/09/07	
Bromoform	EPA 8260B	TE09013	0.40	5.0	ND	1	05/09/07	05/09/07	
Bromomethane	EPA 8260B	TE09013	0.42	5.0	ND	1	05/09/07	05/09/07	
n-Butylbenzene	EPA 8260B	TE09013	0.37	5.0	ND	1	05/09/07	05/09/07	
sec-Butylbenzene	EPA 8260B	TE09013	0.25	5.0	ND	1	05/09/07	05/09/07	
tert-Butylbenzene	EPA 8260B	TE09013	0.22	5.0	ND	1	05/09/07	05/09/07	
Carbon tetrachloride	EPA 8260B	TE09013	0.28	5.0	ND	1	05/09/07	05/09/07	
Chlorobenzene	EPA 8260B	TE09013	0.36	2.0	ND	1	05/09/07	05/09/07	
Chloroethane	EPA 8260B	TE09013	0.40	5.0	ND	1	05/09/07	05/09/07	
Chloroform	EPA 8260B	TE09013	0.33	2.0	ND	1	05/09/07	05/09/07	
Chloromethane	EPA 8260B	TE09013	0.40	5.0	ND	1	05/09/07	05/09/07	
2-Chlorotoluene	EPA 8260B	TE09013	0.28	5.0	ND	1	05/09/07	05/09/07	
4-Chlorotoluene	EPA 8260B	TE09013	0.29	5.0	ND	1	05/09/07	05/09/07	
Dibromochloromethane	EPA 8260B	TE09013	0.28	2.0	ND	1	05/09/07	05/09/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE09013	0.97	5.0	ND	1	05/09/07	05/09/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE09013	0.40	2.0	ND	1	05/09/07	05/09/07	
Dibromomethane	EPA 8260B	TE09013	0.36	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichlorobenzene	EPA 8260B	TE09013	0.32	2.0	ND	1	05/09/07	05/09/07	
1,3-Dichlorobenzene	EPA 8260B	TE09013	0.35	2.0	ND	1	05/09/07	05/09/07	
1,4-Dichlorobenzene	EPA 8260B	TE09013	0.37	2.0	ND	1	05/09/07	05/09/07	
Dichlorodifluoromethane	EPA 8260B	TE09013	0.79	5.0	ND	1	05/09/07	05/09/07	
<b>1,1-Dichloroethane</b>	EPA 8260B	TE09013	0.27	2.0	<b>0.68</b>	1	05/09/07	05/09/07	J
1,2-Dichloroethane	EPA 8260B	TE09013	0.28	2.0	ND	1	05/09/07	05/09/07	
<b>1,1-Dichloroethene</b>	EPA 8260B	TE09013	0.42	5.0	<b>3.7</b>	1	05/09/07	05/09/07	J
<b>cis-1,2-Dichloroethene</b>	EPA 8260B	TE09013	0.32	2.0	<b>1.6</b>	1	05/09/07	05/09/07	J
trans-1,2-Dichloroethene	EPA 8260B	TE09013	0.27	2.0	ND	1	05/09/07	05/09/07	
<b>1,2-Dichloropropane</b>	EPA 8260B	TE09013	0.35	2.0	<b>0.70</b>	1	05/09/07	05/09/07	J
1,3-Dichloropropane	EPA 8260B	TE09013	0.32	2.0	ND	1	05/09/07	05/09/07	
2,2-Dichloropropane	EPA 8260B	TE09013	0.34	2.0	ND	1	05/09/07	05/09/07	
1,1-Dichloropropene	EPA 8260B	TE09013	0.28	2.0	ND	1	05/09/07	05/09/07	
cis-1,3-Dichloropropene	EPA 8260B	TE09013	0.22	2.0	ND	1	05/09/07	05/09/07	
trans-1,3-Dichloropropene	EPA 8260B	TE09013	0.32	2.0	ND	1	05/09/07	05/09/07	
Ethylbenzene	EPA 8260B	TE09013	0.25	2.0	ND	1	05/09/07	05/09/07	
Hexachlorobutadiene	EPA 8260B	TE09013	0.38	5.0	ND	1	05/09/07	05/09/07	
Isopropylbenzene	EPA 8260B	TE09013	0.25	2.0	ND	1	05/09/07	05/09/07	
p-Isopropyltoluene	EPA 8260B	TE09013	0.28	2.0	ND	1	05/09/07	05/09/07	
Methylene chloride	EPA 8260B	TE09013	0.95	5.0	ND	1	05/09/07	05/09/07	
Naphthalene	EPA 8260B	TE09013	0.41	5.0	ND	1	05/09/07	05/09/07	

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Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-03 (MW_605_0507 - Water) - cont.</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E09013	0.27	2.0	ND	1	05/09/07	05/09/07	
Styrene	EPA 8260B	7E09013	0.16	2.0	ND	1	05/09/07	05/09/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E09013	0.27	5.0	ND	1	05/09/07	05/09/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E09013	0.24	2.0	ND	1	05/09/07	05/09/07	
<b>Tetrachloroethene</b>	EPA 8260B	7E09013	0.32	2.0	<b>40</b>	1	05/09/07	05/09/07	
Toluene	EPA 8260B	7E09013	0.36	2.0	ND	1	05/09/07	05/09/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E09013	0.30	5.0	ND	1	05/09/07	05/09/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E09013	0.48	5.0	ND	1	05/09/07	05/09/07	
1,1,1-Trichloroethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
1,1,2-Trichloroethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
<b>Trichloroethene</b>	EPA 8260B	7E09013	0.26	2.0	<b>33</b>	1	05/09/07	05/09/07	
Trichlorofluoromethane	EPA 8260B	7E09013	0.34	5.0	ND	1	05/09/07	05/09/07	
1,2,3-Trichloropropane	EPA 8260B	7E09013	0.40	10	ND	1	05/09/07	05/09/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E09013	0.23	2.0	ND	1	05/09/07	05/09/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E09013	0.26	2.0	ND	1	05/09/07	05/09/07	
Vinyl chloride	EPA 8260B	7E09013	0.30	5.0	ND	1	05/09/07	05/09/07	
o-Xylene	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
m,p-Xylenes	EPA 8260B	7E09013	0.60	2.0	ND	1	05/09/07	05/09/07	
Xylenes, Total	EPA 8260B	7E09013	0.90	4.0	ND	1	05/09/07	05/09/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E09013	0.25	5.0	ND	1	05/09/07	05/09/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E09013	0.33	5.0	ND	1	05/09/07	05/09/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E09013	0.32	5.0	ND	1	05/09/07	05/09/07	
tert-Butanol (TBA)	EPA 8260B	7E09013	4.9	50	ND	1	05/09/07	05/09/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					93 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					102 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					93 %				

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

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Attention: Jennifer Wiley

Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-04 (MW_605_0507D - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
Bromobenzene	EPA 8260B	7E09013	0.27	5.0	ND	1	05/09/07	05/09/07	
Bromochloromethane	EPA 8260B	7E09013	0.32	5.0	ND	1	05/09/07	05/09/07	
Bromodichloromethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
Bromoform	EPA 8260B	7E09013	0.40	5.0	ND	1	05/09/07	05/09/07	
Bromomethane	EPA 8260B	7E09013	0.42	5.0	ND	1	05/09/07	05/09/07	
n-Butylbenzene	EPA 8260B	7E09013	0.37	5.0	ND	1	05/09/07	05/09/07	
sec-Butylbenzene	EPA 8260B	7E09013	0.25	5.0	ND	1	05/09/07	05/09/07	
tert-Butylbenzene	EPA 8260B	7E09013	0.22	5.0	ND	1	05/09/07	05/09/07	
Carbon tetrachloride	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
Chlorobenzene	EPA 8260B	7E09013	0.36	2.0	ND	1	05/09/07	05/09/07	
Chloroethane	EPA 8260B	7E09013	0.40	5.0	ND	1	05/09/07	05/09/07	
Chloroform	EPA 8260B	7E09013	0.33	2.0	ND	1	05/09/07	05/09/07	
Chloromethane	EPA 8260B	7E09013	0.40	5.0	ND	1	05/09/07	05/09/07	
2-Chlorotoluene	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
4-Chlorotoluene	EPA 8260B	7E09013	0.29	5.0	ND	1	05/09/07	05/09/07	
Dibromochloromethane	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E09013	0.97	5.0	ND	1	05/09/07	05/09/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E09013	0.40	2.0	ND	1	05/09/07	05/09/07	
Dibromomethane	EPA 8260B	7E09013	0.36	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichlorobenzene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
1,3-Dichlorobenzene	EPA 8260B	7E09013	0.35	2.0	ND	1	05/09/07	05/09/07	
1,4-Dichlorobenzene	EPA 8260B	7E09013	0.37	2.0	ND	1	05/09/07	05/09/07	
Dichlorodifluoromethane	EPA 8260B	7E09013	0.79	5.0	ND	1	05/09/07	05/09/07	
<b>1,1-Dichloroethane</b>	EPA 8260B	7E09013	0.27	2.0	<b>0.74</b>	1	05/09/07	05/09/07	J
1,2-Dichloroethane	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
<b>1,1-Dichloroethene</b>	EPA 8260B	7E09013	0.42	5.0	<b>3.6</b>	1	05/09/07	05/09/07	J
<b>cis-1,2-Dichloroethene</b>	EPA 8260B	7E09013	0.32	2.0	<b>1.6</b>	1	05/09/07	05/09/07	J
trans-1,2-Dichloroethene	EPA 8260B	7E09013	0.27	2.0	ND	1	05/09/07	05/09/07	
<b>1,2-Dichloropropane</b>	EPA 8260B	7E09013	0.35	2.0	<b>0.61</b>	1	05/09/07	05/09/07	J
1,3-Dichloropropane	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
2,2-Dichloropropane	EPA 8260B	7E09013	0.34	2.0	ND	1	05/09/07	05/09/07	
1,1-Dichloropropene	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
cis-1,3-Dichloropropene	EPA 8260B	7E09013	0.22	2.0	ND	1	05/09/07	05/09/07	
trans-1,3-Dichloropropene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
Ethylbenzene	EPA 8260B	7E09013	0.25	2.0	ND	1	05/09/07	05/09/07	
Hexachlorobutadiene	EPA 8260B	7E09013	0.38	5.0	ND	1	05/09/07	05/09/07	
Isopropylbenzene	EPA 8260B	7E09013	0.25	2.0	ND	1	05/09/07	05/09/07	
p-Isopropyltoluene	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
Methylene chloride	EPA 8260B	7E09013	0.95	5.0	ND	1	05/09/07	05/09/07	
Naphthalene	EPA 8260B	7E09013	0.41	5.0	ND	1	05/09/07	05/09/07	

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Project ID: Former Cenex Refinery - 2006  
 54205.001  
 Report Number: IQE0810

Sampled: 05/08/07  
 Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-04 (MW_605_0507D - Water) - cont.</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E09013	0.27	2.0	ND	1	05/09/07	05/09/07	
Styrene	EPA 8260B	7E09013	0.16	2.0	ND	1	05/09/07	05/09/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E09013	0.27	5.0	ND	1	05/09/07	05/09/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E09013	0.24	2.0	ND	1	05/09/07	05/09/07	
<b>Tetrachloroethene</b>	EPA 8260B	7E09013	0.32	2.0	<b>45</b>	1	05/09/07	05/09/07	
Toluene	EPA 8260B	7E09013	0.36	2.0	ND	1	05/09/07	05/09/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E09013	0.30	5.0	ND	1	05/09/07	05/09/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E09013	0.48	5.0	ND	1	05/09/07	05/09/07	
1,1,1-Trichloroethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
1,1,2-Trichloroethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
<b>Trichloroethene</b>	EPA 8260B	7E09013	0.26	2.0	<b>35</b>	1	05/09/07	05/09/07	
Trichlorofluoromethane	EPA 8260B	7E09013	0.34	5.0	ND	1	05/09/07	05/09/07	
1,2,3-Trichloropropane	EPA 8260B	7E09013	0.40	10	ND	1	05/09/07	05/09/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E09013	0.23	2.0	ND	1	05/09/07	05/09/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E09013	0.26	2.0	ND	1	05/09/07	05/09/07	
Vinyl chloride	EPA 8260B	7E09013	0.30	5.0	ND	1	05/09/07	05/09/07	
o-Xylene	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
m,p-Xylenes	EPA 8260B	7E09013	0.60	2.0	ND	1	05/09/07	05/09/07	
Xylenes, Total	EPA 8260B	7E09013	0.90	4.0	ND	1	05/09/07	05/09/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E09013	0.25	5.0	ND	1	05/09/07	05/09/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E09013	0.33	5.0	ND	1	05/09/07	05/09/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E09013	0.32	5.0	ND	1	05/09/07	05/09/07	
tert-Butanol (TBA)	EPA 8260B	7E09013	4.9	50	ND	1	05/09/07	05/09/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					90 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					98 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					92 %				

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-05 (MW_607_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	TE09031	0.28	2.0	ND	1	05/09/07	05/10/07	
Bromobenzene	EPA 8260B	TE09031	0.27	5.0	ND	1	05/09/07	05/10/07	
Bromoform	EPA 8260B	TE09031	0.32	5.0	ND	1	05/09/07	05/10/07	
Bromochloromethane	EPA 8260B	TE09031	0.30	2.0	ND	1	05/09/07	05/10/07	
Bromodichloromethane	EPA 8260B	TE09031	0.40	5.0	ND	1	05/09/07	05/10/07	
n-Butylbenzene	EPA 8260B	TE09031	0.42	5.0	ND	1	05/09/07	05/10/07	
sec-Butylbenzene	EPA 8260B	TE09031	0.37	5.0	ND	1	05/09/07	05/10/07	
tert-Butylbenzene	EPA 8260B	TE09031	0.25	5.0	1.4	1	05/09/07	05/10/07	J
Carbon tetrachloride	EPA 8260B	TE09031	0.22	5.0	0.35	1	05/09/07	05/10/07	J
Chlorobenzene	EPA 8260B	TE09031	0.28	5.0	ND	1	05/09/07	05/10/07	
Chloroethane	EPA 8260B	TE09031	0.36	2.0	ND	1	05/09/07	05/10/07	
Chloroform	EPA 8260B	TE09031	0.33	2.0	ND	1	05/09/07	05/10/07	
Chloromethane	EPA 8260B	TE09031	0.40	5.0	ND	1	05/09/07	05/10/07	
2-Chlorotoluene	EPA 8260B	TE09031	0.28	5.0	ND	1	05/09/07	05/10/07	
4-Chlorotoluene	EPA 8260B	TE09031	0.29	5.0	ND	1	05/09/07	05/10/07	
Dibromochloromethane	EPA 8260B	TE09031	0.28	2.0	ND	1	05/09/07	05/10/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE09031	0.97	5.0	ND	1	05/09/07	05/10/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE09031	0.40	2.0	ND	1	05/09/07	05/10/07	
Dibromomethane	EPA 8260B	TE09031	0.36	2.0	ND	1	05/09/07	05/10/07	
1,2-Dichlorobenzene	EPA 8260B	TE09031	0.32	2.0	ND	1	05/09/07	05/10/07	
1,3-Dichlorobenzene	EPA 8260B	TE09031	0.35	2.0	ND	1	05/09/07	05/10/07	
1,4-Dichlorobenzene	EPA 8260B	TE09031	0.37	2.0	ND	1	05/09/07	05/10/07	
Dichlorodifluoromethane	EPA 8260B	TE09031	0.79	5.0	ND	1	05/09/07	05/10/07	
1,1-Dichloroethane	EPA 8260B	TE09031	0.27	2.0	ND	1	05/09/07	05/10/07	
1,2-Dichloroethane	EPA 8260B	TE09031	0.28	2.0	ND	1	05/09/07	05/10/07	
1,1-Dichloroethene	EPA 8260B	TE09031	0.42	5.0	ND	1	05/09/07	05/10/07	
cis-1,2-Dichloroethene	EPA 8260B	TE09031	0.32	2.0	ND	1	05/09/07	05/10/07	
trans-1,2-Dichloroethene	EPA 8260B	TE09031	0.27	2.0	ND	1	05/09/07	05/10/07	
1,2-Dichloropropane	EPA 8260B	TE09031	0.35	2.0	ND	1	05/09/07	05/10/07	
1,3-Dichloropropane	EPA 8260B	TE09031	0.32	2.0	ND	1	05/09/07	05/10/07	
2,2-Dichloropropane	EPA 8260B	TE09031	0.34	2.0	ND	1	05/09/07	05/10/07	
1,1-Dichloropropene	EPA 8260B	TE09031	0.28	2.0	ND	1	05/09/07	05/10/07	
cis-1,3-Dichloropropene	EPA 8260B	TE09031	0.22	2.0	ND	1	05/09/07	05/10/07	
trans-1,3-Dichloropropene	EPA 8260B	TE09031	0.32	2.0	ND	1	05/09/07	05/10/07	
Ethylbenzene	EPA 8260B	TE09031	0.25	2.0	ND	1	05/09/07	05/10/07	
Hexachlorobutadiene	EPA 8260B	TE09031	0.38	5.0	ND	1	05/09/07	05/10/07	
Isopropylbenzene	EPA 8260B	TE09031	0.25	2.0	3.2	1	05/09/07	05/10/07	
p-Isopropyltoluene	EPA 8260B	TE09031	0.28	2.0	ND	1	05/09/07	05/10/07	
Methylene chloride	EPA 8260B	TE09031	0.95	5.0	ND	1	05/09/07	05/10/07	
Naphthalene	EPA 8260B	TE09031	0.41	5.0	ND	1	05/09/07	05/10/07	

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Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-05 (MW_607_0507 - Water) - cont.</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E09031	0.27	2.0	<b>1.9</b>	1	05/09/07	05/10/07	J
Styrene	EPA 8260B	7E09031	0.16	2.0	ND	1	05/09/07	05/10/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E09031	0.27	5.0	ND	1	05/09/07	05/10/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E09031	0.24	2.0	ND	1	05/09/07	05/10/07	
Tetrachloroethene	EPA 8260B	7E09031	0.32	2.0	ND	1	05/09/07	05/10/07	
Toluene	EPA 8260B	7E09031	0.36	2.0	ND	1	05/09/07	05/10/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E09031	0.30	5.0	ND	1	05/09/07	05/10/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E09031	0.48	5.0	ND	1	05/09/07	05/10/07	
1,1,1-Trichloroethane	EPA 8260B	7E09031	0.30	2.0	ND	1	05/09/07	05/10/07	
1,1,2-Trichloroethane	EPA 8260B	7E09031	0.30	2.0	ND	1	05/09/07	05/10/07	
Trichloroethene	EPA 8260B	7E09031	0.26	2.0	ND	1	05/09/07	05/10/07	
Trichlorofluoromethane	EPA 8260B	7E09031	0.34	5.0	ND	1	05/09/07	05/10/07	
1,2,3-Trichloropropane	EPA 8260B	7E09031	0.40	10	ND	1	05/09/07	05/10/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E09031	0.23	2.0	ND	1	05/09/07	05/10/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E09031	0.26	2.0	ND	1	05/09/07	05/10/07	
Vinyl chloride	EPA 8260B	7E09031	0.30	5.0	ND	1	05/09/07	05/10/07	
o-Xylene	EPA 8260B	7E09031	0.30	2.0	ND	1	05/09/07	05/10/07	
m,p-Xylenes	EPA 8260B	7E09031	0.60	2.0	ND	1	05/09/07	05/10/07	
Xylenes, Total	EPA 8260B	7E09031	0.90	4.0	ND	1	05/09/07	05/10/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E09031	0.25	5.0	ND	1	05/09/07	05/10/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E09031	0.28	5.0	ND	1	05/09/07	05/10/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E09031	0.33	5.0	ND	1	05/09/07	05/10/07	
<b>Methyl-tert-butyl Ether (MTBE)</b>	EPA 8260B	7E09031	0.32	5.0	<b>2.3</b>	1	05/09/07	05/10/07	J
<b>tert-Butanol (TBA)</b>	EPA 8260B	7E09031	4.9	50	<b>110</b>	1	05/09/07	05/10/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									93 %
<i>Surrogate: Toluene-d8 (80-120%)</i>									101 %
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									95 %

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Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-06 (MW_104A_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
Bromobenzene	EPA 8260B	7E09013	0.27	5.0	ND	1	05/09/07	05/09/07	
Bromochloromethane	EPA 8260B	7E09013	0.32	5.0	ND	1	05/09/07	05/09/07	
Bromodichloromethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
Bromoform	EPA 8260B	7E09013	0.40	5.0	ND	1	05/09/07	05/09/07	
Bromomethane	EPA 8260B	7E09013	0.42	5.0	ND	1	05/09/07	05/09/07	
n-Butylbenzene	EPA 8260B	7E09013	0.37	5.0	ND	1	05/09/07	05/09/07	
sec-Butylbenzene	EPA 8260B	7E09013	0.25	5.0	ND	1	05/09/07	05/09/07	
tert-Butylbenzene	EPA 8260B	7E09013	0.22	5.0	ND	1	05/09/07	05/09/07	
Carbon tetrachloride	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
Chlorobenzene	EPA 8260B	7E09013	0.36	2.0	ND	1	05/09/07	05/09/07	
Chloroethane	EPA 8260B	7E09013	0.40	5.0	ND	1	05/09/07	05/09/07	
Chloroform	EPA 8260B	7E09013	0.33	2.0	ND	1	05/09/07	05/09/07	
Chloromethane	EPA 8260B	7E09013	0.40	5.0	ND	1	05/09/07	05/09/07	
2-Chlorotoluene	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
4-Chlorotoluene	EPA 8260B	7E09013	0.29	5.0	ND	1	05/09/07	05/09/07	
Dibromochloromethane	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E09013	0.97	5.0	ND	1	05/09/07	05/09/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E09013	0.40	2.0	ND	1	05/09/07	05/09/07	
Dibromomethane	EPA 8260B	7E09013	0.36	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichlorobenzene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
1,3-Dichlorobenzene	EPA 8260B	7E09013	0.35	2.0	ND	1	05/09/07	05/09/07	
1,4-Dichlorobenzene	EPA 8260B	7E09013	0.37	2.0	ND	1	05/09/07	05/09/07	
Dichlorodifluoromethane	EPA 8260B	7E09013	0.79	5.0	ND	1	05/09/07	05/09/07	
1,1-Dichloroethane	EPA 8260B	7E09013	0.27	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichloroethane	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
1,1-Dichloroethene	EPA 8260B	7E09013	0.42	5.0	ND	1	05/09/07	05/09/07	
cis-1,2-Dichloroethene	EPA 8260B	7E09013	0.32	2.0	<b>1.8</b>	1	05/09/07	05/09/07	J
trans-1,2-Dichloroethene	EPA 8260B	7E09013	0.27	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichloropropane	EPA 8260B	7E09013	0.35	2.0	ND	1	05/09/07	05/09/07	
1,3-Dichloropropane	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
2,2-Dichloropropane	EPA 8260B	7E09013	0.34	2.0	ND	1	05/09/07	05/09/07	
1,1-Dichloropropene	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
cis-1,3-Dichloropropene	EPA 8260B	7E09013	0.22	2.0	ND	1	05/09/07	05/09/07	
trans-1,3-Dichloropropene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
Ethylbenzene	EPA 8260B	7E09013	0.25	2.0	ND	1	05/09/07	05/09/07	
Hexachlorobutadiene	EPA 8260B	7E09013	0.38	5.0	ND	1	05/09/07	05/09/07	
Isopropylbenzene	EPA 8260B	7E09013	0.25	2.0	ND	1	05/09/07	05/09/07	
p-Isopropyltoluene	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
Methylene chloride	EPA 8260B	7E09013	0.95	5.0	ND	1	05/09/07	05/09/07	
Naphthalene	EPA 8260B	7E09013	0.41	5.0	ND	1	05/09/07	05/09/07	

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

Arcadis - Blasland, Bouck & Lee  
 3240 El Camino Real, Suite 200  
 Irvine, CA 92602  
 Attention: Jennifer Wiley

Project ID: Former Ceneo Refinery - 2006  
 54205.001  
 Report Number: IQE0810

Sampled: 05/08/07  
 Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-06 (MW_104A_0507 - Water) - cont.</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E09013	0.27	2.0	ND	1	05/09/07	05/09/07	
Styrene	EPA 8260B	7E09013	0.16	2.0	ND	1	05/09/07	05/09/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E09013	0.27	5.0	ND	1	05/09/07	05/09/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E09013	0.24	2.0	ND	1	05/09/07	05/09/07	
Tetrachloroethene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
Toluene	EPA 8260B	7E09013	0.36	2.0	<b>0.37</b>	1	05/09/07	05/09/07	J
1,2,3-Trichlorobenzene	EPA 8260B	7E09013	0.30	5.0	ND	1	05/09/07	05/09/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E09013	0.48	5.0	ND	1	05/09/07	05/09/07	
1,1,1-Trichloroethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
1,1,2-Trichloroethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
Trichloroethene	EPA 8260B	7E09013	0.26	2.0	<b>0.39</b>	1	05/09/07	05/09/07	J
Trichlorofluoromethane	EPA 8260B	7E09013	0.34	5.0	ND	1	05/09/07	05/09/07	
1,2,3-Trichloropropane	EPA 8260B	7E09013	0.40	10	ND	1	05/09/07	05/09/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E09013	0.23	2.0	ND	1	05/09/07	05/09/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E09013	0.26	2.0	ND	1	05/09/07	05/09/07	
Vinyl chloride	EPA 8260B	7E09013	0.30	5.0	ND	1	05/09/07	05/09/07	
o-Xylene	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
m,p-Xylenes	EPA 8260B	7E09013	0.60	2.0	ND	1	05/09/07	05/09/07	
Xylenes, Total	EPA 8260B	7E09013	0.90	4.0	ND	1	05/09/07	05/09/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E09013	0.25	5.0	ND	1	05/09/07	05/09/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E09013	0.33	5.0	ND	1	05/09/07	05/09/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E09013	0.32	5.0	ND	1	05/09/07	05/09/07	
<b>tert-Butanol (TBA)</b>	EPA 8260B	7E09013	<b>4.9</b>	<b>50</b>	<b>340</b>	1	05/09/07	05/09/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									90 %
<i>Surrogate: Toluene-d8 (80-120%)</i>									100 %
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									93 %

TestAmerica - Irvine, CA  
 Sushmitha Reddy  
 Project Manager

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Attention: Jennifer Wiley

Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-07 (W_7_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
Reporting Units: ug/l									
Benzene	EPA 8260B	7E09031	0.28	2.0	0.41	1	05/09/07	05/10/07	J
Bromobenzene	EPA 8260B	7E09031	0.27	5.0	ND	1	05/09/07	05/10/07	
Bromochloromethane	EPA 8260B	7E09031	0.32	5.0	ND	1	05/09/07	05/10/07	
Bromodichloromethane	EPA 8260B	7E09031	0.30	2.0	ND	1	05/09/07	05/10/07	
Bromoform	EPA 8260B	7E09031	0.40	5.0	ND	1	05/09/07	05/10/07	
Bromomethane	EPA 8260B	7E09031	0.42	5.0	ND	1	05/09/07	05/10/07	
n-Butylbenzene	EPA 8260B	7E09031	0.37	5.0	ND	1	05/09/07	05/10/07	
sec-Butylbenzene	EPA 8260B	7E09031	0.25	5.0	ND	1	05/09/07	05/10/07	
tert-Butylbenzene	EPA 8260B	7E09031	0.22	5.0	ND	1	05/09/07	05/10/07	
Carbon tetrachloride	EPA 8260B	7E09031	0.28	5.0	ND	1	05/09/07	05/10/07	
Chlorobenzene	EPA 8260B	7E09031	0.36	2.0	ND	1	05/09/07	05/10/07	
Chloroethane	EPA 8260B	7E09031	0.40	5.0	ND	1	05/09/07	05/10/07	
Chloroform	EPA 8260B	7E09031	0.33	2.0	ND	1	05/09/07	05/10/07	
Chloromethane	EPA 8260B	7E09031	0.40	5.0	ND	1	05/09/07	05/10/07	
2-Chlorotoluene	EPA 8260B	7E09031	0.28	5.0	ND	1	05/09/07	05/10/07	
4-Chlorotoluene	EPA 8260B	7E09031	0.29	5.0	ND	1	05/09/07	05/10/07	
Dibromochloromethane	EPA 8260B	7E09031	0.28	2.0	ND	1	05/09/07	05/10/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E09031	0.97	5.0	ND	1	05/09/07	05/10/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E09031	0.40	2.0	ND	1	05/09/07	05/10/07	
Dibromomethane	EPA 8260B	7E09031	0.36	2.0	ND	1	05/09/07	05/10/07	
1,2-Dichlorobenzene	EPA 8260B	7E09031	0.32	2.0	ND	1	05/09/07	05/10/07	
1,3-Dichlorobenzene	EPA 8260B	7E09031	0.35	2.0	ND	1	05/09/07	05/10/07	
1,4-Dichlorobenzene	EPA 8260B	7E09031	0.37	2.0	ND	1	05/09/07	05/10/07	
Dichlorodifluoromethane	EPA 8260B	7E09031	0.79	5.0	ND	1	05/09/07	05/10/07	
<b>1,1-Dichloroethane</b>	EPA 8260B	7E09031	0.27	2.0	<b>0.41</b>	1	05/09/07	05/10/07	J
1,2-Dichloroethane	EPA 8260B	7E09031	0.28	2.0	ND	1	05/09/07	05/10/07	
1,1-Dichloroethene	EPA 8260B	7E09031	0.42	5.0	ND	1	05/09/07	05/10/07	
cis-1,2-Dichloroethene	EPA 8260B	7E09031	0.32	2.0	ND	1	05/09/07	05/10/07	
trans-1,2-Dichloroethene	EPA 8260B	7E09031	0.27	2.0	ND	1	05/09/07	05/10/07	
1,2-Dichloropropane	EPA 8260B	7E09031	0.35	2.0	ND	1	05/09/07	05/10/07	
1,3-Dichloropropane	EPA 8260B	7E09031	0.32	2.0	ND	1	05/09/07	05/10/07	
2,2-Dichloropropane	EPA 8260B	7E09031	0.34	2.0	ND	1	05/09/07	05/10/07	
1,1-Dichloropropene	EPA 8260B	7E09031	0.28	2.0	ND	1	05/09/07	05/10/07	
cis-1,3-Dichloropropene	EPA 8260B	7E09031	0.22	2.0	ND	1	05/09/07	05/10/07	
trans-1,3-Dichloropropene	EPA 8260B	7E09031	0.32	2.0	ND	1	05/09/07	05/10/07	
<b>Ethylbenzene</b>	EPA 8260B	7E09031	0.25	2.0	<b>0.87</b>	1	05/09/07	05/10/07	J
Hexachlorobutadiene	EPA 8260B	7E09031	0.38	5.0	ND	1	05/09/07	05/10/07	
Isopropylbenzene	EPA 8260B	7E09031	0.25	2.0	ND	1	05/09/07	05/10/07	
p-Isopropyltoluene	EPA 8260B	7E09031	0.28	2.0	ND	1	05/09/07	05/10/07	
Methylene chloride	EPA 8260B	7E09031	0.95	5.0	ND	1	05/09/07	05/10/07	
Naphthalene	EPA 8260B	7E09031	0.41	5.0	<b>0.90</b>	1	05/09/07	05/10/07	J

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

Arcadis - Blasland, Bouck & Lee  
 3240 El Camino Real, Suite 200  
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 Attention: Jennifer Wiley

Project ID: Former Cenex Refinery - 2006  
 54205.001  
 Report Number: IQE0810

Sampled: 05/08/07  
 Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-07 (W_7_0507 - Water) - cont.</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E09031	0.27	2.0	ND	1	05/09/07	05/10/07	
Styrene	EPA 8260B	7E09031	0.16	2.0	ND	1	05/09/07	05/10/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E09031	0.27	5.0	ND	1	05/09/07	05/10/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E09031	0.24	2.0	ND	1	05/09/07	05/10/07	
Tetrachloroethene	EPA 8260B	7E09031	0.32	2.0	ND	1	05/09/07	05/10/07	
Toluene	EPA 8260B	7E09031	0.36	2.0	<b>0.45</b>	1	05/09/07	05/10/07	J
1,2,3-Trichlorobenzene	EPA 8260B	7E09031	0.30	5.0	ND	1	05/09/07	05/10/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E09031	0.48	5.0	ND	1	05/09/07	05/10/07	
1,1,1-Trichloroethane	EPA 8260B	7E09031	0.30	2.0	ND	1	05/09/07	05/10/07	
1,1,2-Trichloroethane	EPA 8260B	7E09031	0.30	2.0	ND	1	05/09/07	05/10/07	
Trichloroethene	EPA 8260B	7E09031	0.26	2.0	ND	1	05/09/07	05/10/07	
Trichlorofluoromethane	EPA 8260B	7E09031	0.34	5.0	ND	1	05/09/07	05/10/07	
1,2,3-Trichloropropane	EPA 8260B	7E09031	0.40	10	ND	1	05/09/07	05/10/07	
<b>1,2,4 Trimethylbenzene</b>	EPA 8260B	7E09031	0.23	2.0	<b>1.4</b>	1	05/09/07	05/10/07	J
<b>1,3,5 Trimethylbenzene</b>	EPA 8260B	7E09031	0.26	2.0	<b>0.35</b>	1	05/09/07	05/10/07	J
Vinyl chloride	EPA 8260B	7E09031	0.30	5.0	ND	1	05/09/07	05/10/07	
<b>o-Xylene</b>	EPA 8260B	7E09031	0.30	2.0	<b>0.75</b>	1	05/09/07	05/10/07	J
<b>m,p-Xylenes</b>	EPA 8260B	7E09031	0.60	2.0	<b>1.4</b>	1	05/09/07	05/10/07	J
<b>Xylenes, Total</b>	EPA 8260B	7E09031	0.90	4.0	<b>2.2</b>	1	05/09/07	05/10/07	J
Di-isopropyl Ether (DIPE)	EPA 8260B	7E09031	0.25	5.0	ND	1	05/09/07	05/10/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E09031	0.28	5.0	ND	1	05/09/07	05/10/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E09031	0.33	5.0	ND	1	05/09/07	05/10/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E09031	0.32	5.0	ND	1	05/09/07	05/10/07	
tert-Butanol (TBA)	EPA 8260B	7E09031	4.9	50	ND	1	05/09/07	05/10/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									94 %
<i>Surrogate: Toluene-d8 (80-120%)</i>									100 %
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									92 %

TestAmerica - Irvine, CA  
 Sushmitha Reddy  
 Project Manager

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Attention: Jennifer Wiley

Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-08 (W_8_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	7E09013	0.28	2.0	0.49	1	05/09/07	05/09/07	J
Bromobenzene	EPA 8260B	7E09013	0.27	5.0	ND	1	05/09/07	05/09/07	
Bromochloromethane	EPA 8260B	7E09013	0.32	5.0	ND	1	05/09/07	05/09/07	
Bromodichloromethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
Bromoform	EPA 8260B	7E09013	0.40	5.0	ND	1	05/09/07	05/09/07	
Bromomethane	EPA 8260B	7E09013	0.42	5.0	ND	1	05/09/07	05/09/07	
n-Butylbenzene	EPA 8260B	7E09013	0.37	5.0	ND	1	05/09/07	05/09/07	
sec-Butylbenzene	EPA 8260B	7E09013	0.25	5.0	ND	1	05/09/07	05/09/07	
tert-Butylbenzene	EPA 8260B	7E09013	0.22	5.0	ND	1	05/09/07	05/09/07	
Carbon tetrachloride	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
Chlorobenzene	EPA 8260B	7E09013	0.36	2.0	ND	1	05/09/07	05/09/07	
Chloroethane	EPA 8260B	7E09013	0.40	5.0	ND	1	05/09/07	05/09/07	
Chloroform	EPA 8260B	7E09013	0.33	2.0	ND	1	05/09/07	05/09/07	
Chloromethane	EPA 8260B	7E09013	0.40	5.0	ND	1	05/09/07	05/09/07	
2-Chlorotoluene	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
4-Chlorotoluene	EPA 8260B	7E09013	0.29	5.0	ND	1	05/09/07	05/09/07	
Dibromochloromethane	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E09013	0.97	5.0	ND	1	05/09/07	05/09/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E09013	0.40	2.0	ND	1	05/09/07	05/09/07	
Dibromomethane	EPA 8260B	7E09013	0.36	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichlorobenzene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
1,3-Dichlorobenzene	EPA 8260B	7E09013	0.35	2.0	ND	1	05/09/07	05/09/07	
1,4-Dichlorobenzene	EPA 8260B	7E09013	0.37	2.0	ND	1	05/09/07	05/09/07	
Dichlorodifluoromethane	EPA 8260B	7E09013	0.79	5.0	ND	1	05/09/07	05/09/07	
1,1-Dichloroethane	EPA 8260B	7E09013	0.27	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichloroethane	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
1,1-Dichloroethene	EPA 8260B	7E09013	0.42	5.0	ND	1	05/09/07	05/09/07	
cis-1,2-Dichloroethene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
trans-1,2-Dichloroethene	EPA 8260B	7E09013	0.27	2.0	ND	1	05/09/07	05/09/07	
1,2-Dichloropropane	EPA 8260B	7E09013	0.35	2.0	ND	1	05/09/07	05/09/07	
1,3-Dichloropropane	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
2,2-Dichloropropane	EPA 8260B	7E09013	0.34	2.0	ND	1	05/09/07	05/09/07	
1,1-Dichloropropene	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
cis-1,3-Dichloropropene	EPA 8260B	7E09013	0.22	2.0	ND	1	05/09/07	05/09/07	
trans-1,3-Dichloropropene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
Ethylbenzene	EPA 8260B	7E09013	0.25	2.0	0.33	1	05/09/07	05/09/07	J
Hexachlorobutadiene	EPA 8260B	7E09013	0.38	5.0	ND	1	05/09/07	05/09/07	
Isopropylbenzene	EPA 8260B	7E09013	0.25	2.0	ND	1	05/09/07	05/09/07	
p-Isopropyltoluene	EPA 8260B	7E09013	0.28	2.0	ND	1	05/09/07	05/09/07	
Methylene chloride	EPA 8260B	7E09013	0.95	5.0	ND	1	05/09/07	05/09/07	
Naphthalene	EPA 8260B	7E09013	0.41	5.0	ND	1	05/09/07	05/09/07	

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Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-08 (W_8_0507 - Water) - cont.</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E09013	0.27	2.0	ND	1	05/09/07	05/09/07	
Styrene	EPA 8260B	7E09013	0.16	2.0	ND	1	05/09/07	05/09/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E09013	0.27	5.0	ND	1	05/09/07	05/09/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E09013	0.24	2.0	ND	1	05/09/07	05/09/07	
Tetrachloroethene	EPA 8260B	7E09013	0.32	2.0	ND	1	05/09/07	05/09/07	
Toluene	EPA 8260B	7E09013	0.36	2.0	<b>0.73</b>	1	05/09/07	05/09/07	J
1,2,3-Trichlorobenzene	EPA 8260B	7E09013	0.30	5.0	ND	1	05/09/07	05/09/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E09013	0.48	5.0	ND	1	05/09/07	05/09/07	
1,1,1-Trichloroethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
1,1,2-Trichloroethane	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
Trichloroethene	EPA 8260B	7E09013	0.26	2.0	ND	1	05/09/07	05/09/07	
Trichlorofluoromethane	EPA 8260B	7E09013	0.34	5.0	ND	1	05/09/07	05/09/07	
1,2,3-Trichloropropane	EPA 8260B	7E09013	0.40	10	ND	1	05/09/07	05/09/07	
<b>1,2,4 Trimethylbenzene</b>	EPA 8260B	7E09013	0.23	2.0	<b>0.23</b>	1	05/09/07	05/09/07	J
1,3,5-Trimethylbenzene	EPA 8260B	7E09013	0.26	2.0	ND	1	05/09/07	05/09/07	
Vinyl chloride	EPA 8260B	7E09013	0.30	5.0	ND	1	05/09/07	05/09/07	
o-Xylene	EPA 8260B	7E09013	0.30	2.0	ND	1	05/09/07	05/09/07	
m,p-Xylenes	EPA 8260B	7E09013	0.60	2.0	ND	1	05/09/07	05/09/07	
Xylenes, Total	EPA 8260B	7E09013	0.90	4.0	ND	1	05/09/07	05/09/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E09013	0.25	5.0	ND	1	05/09/07	05/09/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E09013	0.28	5.0	ND	1	05/09/07	05/09/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E09013	0.33	5.0	ND	1	05/09/07	05/09/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E09013	0.32	5.0	ND	1	05/09/07	05/09/07	
tert-Butanol (TBA)	EPA 8260B	7E09013	4.9	50	ND	1	05/09/07	05/09/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					95 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					101 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					95 %				

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Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-09 (MW_604_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	TE09031	0.28	2.0	<b>4.4</b>	1	05/09/07	05/10/07	
Bromobenzene	EPA 8260B	TE09031	0.27	5.0	ND	1	05/09/07	05/10/07	
Bromochloromethane	EPA 8260B	TE09031	0.32	5.0	ND	1	05/09/07	05/10/07	
Bromodichloromethane	EPA 8260B	TE09031	0.30	2.0	ND	1	05/09/07	05/10/07	
Bromoform	EPA 8260B	TE09031	0.40	5.0	ND	1	05/09/07	05/10/07	
Bromomethane	EPA 8260B	TE09031	0.42	5.0	ND	1	05/09/07	05/10/07	
<b>n-Butylbenzene</b>	EPA 8260B	TE09031	0.37	5.0	<b>1.2</b>	1	05/09/07	05/10/07	J
<b>sec-Butylbenzene</b>	EPA 8260B	TE09031	0.25	5.0	<b>2.7</b>	1	05/09/07	05/10/07	J
<b>tert-Butylbenzene</b>	EPA 8260B	TE09031	0.22	5.0	<b>0.86</b>	1	05/09/07	05/10/07	J
Carbon tetrachloride	EPA 8260B	TE09031	0.28	5.0	ND	1	05/09/07	05/10/07	
Chlorobenzene	EPA 8260B	TE09031	0.36	2.0	ND	1	05/09/07	05/10/07	
Chloroethane	EPA 8260B	TE09031	0.40	5.0	ND	1	05/09/07	05/10/07	
Chloroform	EPA 8260B	TE09031	0.33	2.0	ND	1	05/09/07	05/10/07	
Chloromethane	EPA 8260B	TE09031	0.40	5.0	ND	1	05/09/07	05/10/07	
2-Chlorotoluene	EPA 8260B	TE09031	0.28	5.0	ND	1	05/09/07	05/10/07	
4-Chlorotoluene	EPA 8260B	TE09031	0.29	5.0	ND	1	05/09/07	05/10/07	
Dibromochloromethane	EPA 8260B	TE09031	0.28	2.0	ND	1	05/09/07	05/10/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE09031	0.97	5.0	ND	1	05/09/07	05/10/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE09031	0.40	2.0	ND	1	05/09/07	05/10/07	
Dibromomethane	EPA 8260B	TE09031	0.36	2.0	ND	1	05/09/07	05/10/07	
1,2-Dichlorobenzene	EPA 8260B	TE09031	0.32	2.0	ND	1	05/09/07	05/10/07	
1,3-Dichlorobenzene	EPA 8260B	TE09031	0.35	2.0	ND	1	05/09/07	05/10/07	
1,4-Dichlorobenzene	EPA 8260B	TE09031	0.37	2.0	ND	1	05/09/07	05/10/07	
Dichlorodifluoromethane	EPA 8260B	TE09031	0.79	5.0	ND	1	05/09/07	05/10/07	
1,1-Dichloroethane	EPA 8260B	TE09031	0.27	2.0	ND	1	05/09/07	05/10/07	
1,2-Dichloroethane	EPA 8260B	TE09031	0.28	2.0	ND	1	05/09/07	05/10/07	
1,1-Dichloroethene	EPA 8260B	TE09031	0.42	5.0	ND	1	05/09/07	05/10/07	
cis-1,2-Dichloroethene	EPA 8260B	TE09031	0.32	2.0	ND	1	05/09/07	05/10/07	
trans-1,2-Dichloroethene	EPA 8260B	TE09031	0.27	2.0	ND	1	05/09/07	05/10/07	
1,2-Dichloropropane	EPA 8260B	TE09031	0.35	2.0	ND	1	05/09/07	05/10/07	
1,3-Dichloropropane	EPA 8260B	TE09031	0.32	2.0	ND	1	05/09/07	05/10/07	
2,2-Dichloropropane	EPA 8260B	TE09031	0.34	2.0	ND	1	05/09/07	05/10/07	
1,1-Dichloropropene	EPA 8260B	TE09031	0.28	2.0	ND	1	05/09/07	05/10/07	
cis-1,3-Dichloropropene	EPA 8260B	TE09031	0.22	2.0	ND	1	05/09/07	05/10/07	
trans-1,3-Dichloropropene	EPA 8260B	TE09031	0.32	2.0	ND	1	05/09/07	05/10/07	
Ethylbenzene	EPA 8260B	TE09031	0.25	2.0	ND	1	05/09/07	05/10/07	
Hexachlorobutadiene	EPA 8260B	TE09031	0.38	5.0	ND	1	05/09/07	05/10/07	
<b>Isopropylbenzene</b>	EPA 8260B	TE09031	0.25	2.0	<b>13</b>	1	05/09/07	05/10/07	
p-Isopropyltoluene	EPA 8260B	TE09031	0.28	2.0	ND	1	05/09/07	05/10/07	
Methylene chloride	EPA 8260B	TE09031	0.95	5.0	ND	1	05/09/07	05/10/07	
Naphthalene	EPA 8260B	TE09031	0.41	5.0	ND	1	05/09/07	05/10/07	

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Project ID: Former Ceneo Refinery - 2006  
 54205.001  
 Report Number: IQE0810

Sampled: 05/08/07  
 Received: 05/08/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-09 (MW_604_0507 - Water) - cont.</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E09031	0.27	2.0	7.4	1	05/09/07	05/10/07	
Styrene	EPA 8260B	7E09031	0.16	2.0	ND	1	05/09/07	05/10/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E09031	0.27	5.0	ND	1	05/09/07	05/10/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E09031	0.24	2.0	ND	1	05/09/07	05/10/07	
Tetrachloroethene	EPA 8260B	7E09031	0.32	2.0	ND	1	05/09/07	05/10/07	
Toluene	EPA 8260B	7E09031	0.36	2.0	0.38	1	05/09/07	05/10/07	J
1,2,3-Trichlorobenzene	EPA 8260B	7E09031	0.30	5.0	ND	1	05/09/07	05/10/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E09031	0.48	5.0	ND	1	05/09/07	05/10/07	
1,1,1-Trichloroethane	EPA 8260B	7E09031	0.30	2.0	ND	1	05/09/07	05/10/07	
1,1,2-Trichloroethane	EPA 8260B	7E09031	0.30	2.0	ND	1	05/09/07	05/10/07	
Trichloroethene	EPA 8260B	7E09031	0.26	2.0	ND	1	05/09/07	05/10/07	
Trichlorofluoromethane	EPA 8260B	7E09031	0.34	5.0	ND	1	05/09/07	05/10/07	
1,2,3-Trichloropropane	EPA 8260B	7E09031	0.40	10	ND	1	05/09/07	05/10/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E09031	0.23	2.0	0.48	1	05/09/07	05/10/07	J
1,3,5-Trimethylbenzene	EPA 8260B	7E09031	0.26	2.0	0.26	1	05/09/07	05/10/07	J
Vinyl chloride	EPA 8260B	7E09031	0.30	5.0	0.87	1	05/09/07	05/10/07	J
o-Xylene	EPA 8260B	7E09031	0.30	2.0	0.48	1	05/09/07	05/10/07	J
m,p-Xylenes	EPA 8260B	7E09031	0.60	2.0	0.81	1	05/09/07	05/10/07	J
Xylenes, Total	EPA 8260B	7E09031	0.90	4.0	1.3	1	05/09/07	05/10/07	J
Di-isopropyl Ether (DIPE)	EPA 8260B	7E09031	0.25	5.0	ND	1	05/09/07	05/10/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E09031	0.28	5.0	ND	1	05/09/07	05/10/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E09031	0.33	5.0	ND	1	05/09/07	05/10/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E09031	0.32	5.0	18	1	05/09/07	05/10/07	
tert-Butanol (TBA)	EPA 8260B	7E09031	4.9	50	57	1	05/09/07	05/10/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									92 %
<i>Surrogate: Toluene-d8 (80-120%)</i>									103 %
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									98 %

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Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## DISSOLVED GASES BY HEADSPACE EQUILIBRIUM (RSK-175 MOD.)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-02 (MW_606_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units:</b> mg/l									
Methane	RSK-175 MOD.	7E12049	0.021	0.050	ND	1	05/12/07	05/12/07	
<b>Sample ID: IQE0810-03 (MW_605_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units:</b> mg/l									
Methane	RSK-175 MOD.	7E12049	0.021	0.050	ND	1	05/12/07	05/12/07	
<b>Sample ID: IQE0810-04 (MW_605_0507D - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units:</b> mg/l									
Methane	RSK-175 MOD.	7E12049	0.021	0.050	ND	1	05/12/07	05/12/07	
<b>Sample ID: IQE0810-06 (MW_104A_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units:</b> mg/l									
Methane	RSK-175 MOD.	7E12049	0.021	0.050	ND	1	05/12/07	05/12/07	

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Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-02 (MW_606_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: mg/l</b>									
Alkalinity as CaCO <sub>3</sub>	SM2320B	7E17065	2.0	2.0	360	1	05/17/07	05/17/07	
Ferrous Iron	SM 3500-Fe D	7E09090	0.10	0.10	ND	1	05/09/07	05/09/07	HFT
Chromium VI	EPA 7199	7E08134	0.00020	0.0020	0.0036	1	05/08/07	05/08/07	
Nitrate-N	EPA 300.0	7E08123	1.2	2.2	8.1	20	05/08/07	05/09/07	
Sulfate	EPA 300.0	7E08123	3.0	10	260	20	05/08/07	05/09/07	
<b>Sample ID: IQE0810-03 (MW_605_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: mg/l</b>									
Alkalinity as CaCO <sub>3</sub>	SM2320B	7E17065	2.0	2.0	430	1	05/17/07	05/17/07	
Ferrous Iron	SM 3500-Fe D	7E09090	0.10	0.10	ND	1	05/09/07	05/09/07	HFT
Chromium VI	EPA 7199	7E08134	0.00020	0.0020	ND	1	05/08/07	05/08/07	
Nitrate-N	EPA 300.0	7E08123	0.060	0.11	5.5	1	05/08/07	05/09/07	
Sulfate	EPA 300.0	7E08123	3.0	10	220	20	05/08/07	05/09/07	
<b>Sample ID: IQE0810-04 (MW_605_0507D - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: mg/l</b>									
Alkalinity as CaCO <sub>3</sub>	SM2320B	7E17065	2.0	2.0	440	1	05/17/07	05/17/07	
Ferrous Iron	SM 3500-Fe D	7E09090	0.10	0.10	ND	1	05/09/07	05/09/07	HFT
Chromium VI	EPA 7199	7E08134	0.00020	0.0020	ND	1	05/08/07	05/08/07	
Nitrate-N	EPA 300.0	7E08123	0.060	0.11	5.5	1	05/08/07	05/09/07	
Sulfate	EPA 300.0	7E08123	3.0	10	220	20	05/08/07	05/09/07	
<b>Sample ID: IQE0810-05 (MW_607_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: mg/l</b>									
Chromium VI	EPA 7199	7E08134	0.00020	0.0020	ND	1	05/08/07	05/08/07	
<b>Sample ID: IQE0810-06 (MW_104A_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: mg/l</b>									
Alkalinity as CaCO <sub>3</sub>	SM2320B	7E17065	2.0	2.0	810	1	05/17/07	05/17/07	
Ferrous Iron	SM 3500-Fe D	7E09090	0.10	0.10	0.10	1	05/09/07	05/09/07	HFT
Chromium VI	EPA 7199	7E08134	0.00020	0.0020	ND	1	05/08/07	05/08/07	
Nitrate-N	EPA 300.0	7E08123	0.060	0.11	ND	1	05/08/07	05/09/07	
Sulfate	EPA 300.0	7E08123	0.15	0.50	30	1	05/08/07	05/09/07	
<b>Sample ID: IQE0810-07 (W_7_0507 - Water)</b>									<b>Sampled: 05/08/07</b>
<b>Reporting Units: mg/l</b>									
Chromium VI	EPA 7199	7E08134	0.00020	0.0020	ND	1	05/08/07	05/08/07	

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54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0810-08 (W_8_0507 - Water)</b>								<b>Sampled: 05/08/07</b>	
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E08134	0.00020	0.0020	ND	1	05/08/07	05/08/07	
<b>Sample ID: IQE0810-09 (MW_604_0507 - Water)</b>								<b>Sampled: 05/08/07</b>	
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E08134	0.00020	0.0020	ND	1	05/08/07	05/08/07	

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Sampled: 05/08/07  
Received: 05/08/07

## SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
<b>Sample ID: MW_606_0507 (IQE0810-02) - Water</b>					
EPA 300.0	2	05/08/2007 08:30	05/08/2007 17:30	05/08/2007 23:30	05/09/2007 00:47
EPA 7199	1	05/08/2007 08:30	05/08/2007 17:30	05/08/2007 19:00	05/08/2007 20:38
SM 3500-Fe D	1	05/08/2007 08:30	05/08/2007 17:30	05/09/2007 12:30	05/09/2007 12:50
<b>Sample ID: MW_605_0507 (IQE0810-03) - Water</b>					
EPA 300.0	2	05/08/2007 09:30	05/08/2007 17:30	05/08/2007 23:30	05/09/2007 01:32
EPA 7199	1	05/08/2007 09:30	05/08/2007 17:30	05/08/2007 19:00	05/08/2007 20:49
SM 3500-Fe D	1	05/08/2007 09:30	05/08/2007 17:30	05/09/2007 12:30	05/09/2007 12:50
<b>Sample ID: MW_605_0507D (IQE0810-04) - Water</b>					
EPA 300.0	2	05/08/2007 09:30	05/08/2007 17:30	05/08/2007 23:30	05/09/2007 02:02
EPA 7199	1	05/08/2007 09:30	05/08/2007 17:30	05/08/2007 19:00	05/08/2007 21:00
SM 3500-Fe D	1	05/08/2007 09:30	05/08/2007 17:30	05/09/2007 12:30	05/09/2007 12:50
<b>Sample ID: MW_607_0507 (IQE0810-05) - Water</b>					
EPA 7199	1	05/08/2007 10:50	05/08/2007 17:30	05/08/2007 19:00	05/08/2007 21:11
<b>Sample ID: MW_104A_0507 (IQE0810-06) - Water</b>					
EPA 300.0	2	05/08/2007 13:45	05/08/2007 17:30	05/08/2007 23:30	05/09/2007 02:32
EPA 7199	1	05/08/2007 13:45	05/08/2007 17:30	05/08/2007 19:00	05/08/2007 21:22
SM 3500-Fe D	1	05/08/2007 13:45	05/08/2007 17:30	05/09/2007 12:30	05/09/2007 12:50
<b>Sample ID: W_7_0507 (IQE0810-07) - Water</b>					
EPA 7199	1	05/08/2007 13:30	05/08/2007 17:30	05/08/2007 19:00	05/08/2007 21:33
<b>Sample ID: W_8_0507 (IQE0810-08) - Water</b>					
EPA 7199	1	05/08/2007 15:10	05/08/2007 17:30	05/08/2007 19:00	05/08/2007 21:44
<b>Sample ID: MW_604_0507 (IQE0810-09) - Water</b>					
EPA 7199	1	05/08/2007 15:30	05/08/2007 17:30	05/08/2007 19:00	05/08/2007 21:55

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## METHOD BLANK/QC DATA

### VOLATILE FUEL HYDROCARBONS (EPA 5030/8015M)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E14050 Extracted: 05/14/07</b>											
<b>Blank Analyzed: 05/14/2007 (7E14050-BLK1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)	ND 7.60	50	30	ug/l ug/l	10.0		76	65-140			
<b>LCS Analyzed: 05/14/2007 (7E14050-BS1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)	781 13.2	50	30	ug/l ug/l	800 10.0		98 132	80-120 65-140			
<b>Matrix Spike Analyzed: 05/14/2007 (7E14050-MS1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)	215 10.4	50	30	ug/l ug/l	220 10.0	ND	98 104	65-140 65-140			
<b>Matrix Spike Dup Analyzed: 05/14/2007 (7E14050-MSD1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)	227 10.2	50	30	ug/l ug/l	220 10.0	ND	103 102	65-140 65-140	5	20	
<b>Batch: 7E15026 Extracted: 05/15/07</b>											
<b>Blank Analyzed: 05/15/2007 (7E15026-BLK1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)	ND 9.31	50	30	ug/l ug/l	10.0		93	65-140			
<b>LCS Analyzed: 05/15/2007 (7E15026-BS1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)	819 12.8	50	30	ug/l ug/l	800 10.0		102 128	80-120 65-140			
<b>Matrix Spike Analyzed: 05/15/2007 (7E15026-MS1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)	6160 116	500	300	ug/l ug/l	2200 100	3700	112 116	65-140 65-140			

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## METHOD BLANK/QC DATA

### VOLATILE FUEL HYDROCARBONS (EPA 5030/8015M)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E15026 Extracted: 05/15/07</b>											

Matrix Spike Dup Analyzed: 05/15/2007 (7E15026-MSD1)

GRO (C4 - C12)	5780	500	300	ug/l	2200	3700	95	65-140	6	20
Surrogate 4-BFB (FID)	109			ug/l	100		109	65-140		

Source: IQE0615-10

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 7E09013 Extracted: 05/09/07</u>											
<b>Blank Analyzed: 05/09/2007 (7E09013-BLK1)</b>											
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.40	ug/l							
Bromomethane	ND	5.0	0.42	ug/l							
n-Butylbenzene	ND	5.0	0.37	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
tert-Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.40	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.40	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.97	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.40	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.42	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.32	ug/l							
2,2-Dichloropropane	ND	2.0	0.34	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.32	ug/l							

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 7E09013 Extracted: 05/09/07</u>											
<b>Blank Analyzed: 05/09/2007 (7E09013-BLK1)</b>											
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.95	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.27	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.30	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.40	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.30	ug/l							
o-Xylene	ND	2.0	0.30	ug/l							
m,p-Xylenes	ND	2.0	0.60	ug/l							
Xylenes, Total	ND	4.0	0.90	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
tert-Butanol (TBA)	ND	50	4.9	ug/l							
Surrogate Dibromofluoromethane	23.1			ug/l	25.0		92	80-120			
Surrogate Toluene-d8	25.4			ug/l	25.0		102	80-120			
Surrogate 4-Bromofluorobenzene	22.5			ug/l	25.0		90	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09013 Extracted: 05/09/07</b>											
<b>LCS Analyzed: 05/09/2007 (7E09013-BS1)</b>											
Benzene	22.1	2.0	0.28	ug/l	25.0		88	70-120			
Bromobenzene	22.4	5.0	0.27	ug/l	25.0		90	75-120			
Bromochloromethane	21.6	5.0	0.32	ug/l	25.0		86	70-130			
Bromodichloromethane	21.0	2.0	0.30	ug/l	25.0		84	70-135			
Bromoform	21.4	5.0	0.40	ug/l	25.0		86	55-130			
Bromomethane	22.9	5.0	0.42	ug/l	25.0		92	65-140			
n-Butylbenzene	23.2	5.0	0.37	ug/l	25.0		93	70-130			
sec-Butylbenzene	22.5	5.0	0.25	ug/l	25.0		90	70-125			
tert-Butylbenzene	21.9	5.0	0.22	ug/l	25.0		88	70-125			
Carbon tetrachloride	22.5	5.0	0.28	ug/l	25.0		90	65-140			
Chlorobenzene	21.9	2.0	0.36	ug/l	25.0		88	75-120			
Chloroethane	22.2	5.0	0.40	ug/l	25.0		89	60-140			
Chloroform	20.0	2.0	0.33	ug/l	25.0		80	70-130			
Chloromethane	27.1	5.0	0.40	ug/l	25.0		108	50-140			
2-Chlorotoluene	22.0	5.0	0.28	ug/l	25.0		88	70-125			
4-Chlorotoluene	21.4	5.0	0.29	ug/l	25.0		86	75-125			
Dibromochloromethane	22.4	2.0	0.28	ug/l	25.0		90	70-140			
1,2-Dibromo-3-chloropropane	19.4	5.0	0.97	ug/l	25.0		78	50-135			
1,2-Dibromoethane (EDB)	22.4	2.0	0.40	ug/l	25.0		90	75-125			
Dibromomethane	21.5	2.0	0.36	ug/l	25.0		86	70-125			
1,2-Dichlorobenzene	22.4	2.0	0.32	ug/l	25.0		90	75-120			
1,3-Dichlorobenzene	22.6	2.0	0.35	ug/l	25.0		90	75-120			
1,4-Dichlorobenzene	21.2	2.0	0.37	ug/l	25.0		85	75-120			
Dichlorodifluoromethane	26.9	5.0	0.79	ug/l	25.0		108	35-155			
1,1-Dichloroethane	20.7	2.0	0.27	ug/l	25.0		83	70-125			
1,2-Dichloroethane	20.4	2.0	0.28	ug/l	25.0		82	60-140			
1,1-Dichloroethene	20.0	5.0	0.42	ug/l	25.0		80	70-125			
cis-1,2-Dichloroethene	20.5	2.0	0.32	ug/l	25.0		82	70-125			
trans-1,2-Dichloroethene	21.2	2.0	0.27	ug/l	25.0		85	70-125			
1,2-Dichloropropane	21.1	2.0	0.35	ug/l	25.0		84	70-125			
1,3-Dichloropropane	20.7	2.0	0.32	ug/l	25.0		83	70-120			
2,2-Dichloropropane	21.5	2.0	0.34	ug/l	25.0		86	65-140			
1,1-Dichloropropene	21.8	2.0	0.28	ug/l	25.0		87	75-130			
cis-1,3-Dichloropropene	20.4	2.0	0.22	ug/l	25.0		82	75-125			
trans-1,3-Dichloropropene	20.4	2.0	0.32	ug/l	25.0		82	70-125			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09013 Extracted: 05/09/07</b>											
<b>LCS Analyzed: 05/09/2007 (7E09013-BS1)</b>											
Ethylbenzene	23.4	2.0	0.25	ug/l	25.0	94	75-125				
Hexachlorobutadiene	28.9	5.0	0.38	ug/l	25.0	116	65-135				
Isopropylbenzene	26.1	2.0	0.25	ug/l	25.0	104	75-130				
p-Isopropyltoluene	22.8	2.0	0.28	ug/l	25.0	91	75-125				
Meihylene chloride	19.1	5.0	0.95	ug/l	25.0	76	55-130				
Naphthalene	24.2	5.0	0.41	ug/l	25.0	97	55-135				
n-Propylbenzene	23.9	2.0	0.27	ug/l	25.0	96	75-130				
Styrene	23.6	2.0	0.16	ug/l	25.0	94	75-130				
1,1,1,2-Tetrachloroethane	22.1	5.0	0.27	ug/l	25.0	88	70-130				
1,1,2,2-Tetrachloroethane	19.6	2.0	0.24	ug/l	25.0	78	55-130				
Tetrachloroethene	24.5	2.0	0.32	ug/l	25.0	98	70-125				
Toluene	22.7	2.0	0.36	ug/l	25.0	91	70-120				
1,2,3-Trichlorobenzene	25.1	5.0	0.30	ug/l	25.0	100	65-125				
1,2,4-Trichlorobenzene	26.8	5.0	0.48	ug/l	25.0	107	70-135				
1,1,1-Trichloroethane	20.6	2.0	0.30	ug/l	25.0	82	65-135				
1,1,2-Trichloroethane	21.0	2.0	0.30	ug/l	25.0	84	70-125				
Trichloroethene	23.0	2.0	0.26	ug/l	25.0	92	70-125				
Trichlorofluoromethane	20.5	5.0	0.34	ug/l	25.0	82	65-145				
1,2,3-Trichloropropane	19.9	10	0.40	ug/l	25.0	80	60-130				
1,2,4-Trimethylbenzene	22.8	2.0	0.23	ug/l	25.0	91	75-125				
1,3,5-Trimethylbenzene	22.8	2.0	0.26	ug/l	25.0	91	75-125				
Vinyl chloride	26.7	5.0	0.30	ug/l	25.0	107	55-135				
o-Xylene	23.1	2.0	0.30	ug/l	25.0	92	75-125				
m,p-Xylenes	47.8	2.0	0.60	ug/l	50.0	96	75-125				
Xylenes, Total	70.9	4.0	0.90	ug/l	75.0	95	70-125				
Di-isopropyl Ether (DIPE)	20.3	5.0	0.25	ug/l	25.0	81	60-135				
Ethyl tert-Butyl Ether (ETBE)	20.2	5.0	0.28	ug/l	25.0	81	65-135				
tert-Amyl Methyl Ether (TAME)	20.8	5.0	0.33	ug/l	25.0	83	60-135				
Methyl-tert-butyl Ether (MTBE)	20.0	5.0	0.32	ug/l	25.0	80	60-135				
tert-Butanol (TBA)	124	50	4.9	ug/l	125	99	70-135				
Surrogate Dibromofluoromethane	22.1			ug/l	25.0	88	80-120				
Surrogate Toluene-d8	25.2			ug/l	25.0	101	80-120				
Surrogate 4-Bromofluorobenzene	23.9			ug/l	25.0	96	80-120				

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09013 Extracted: 05/09/07</b>											
<b>Matrix Spike Analyzed: 05/09/2007 (7E09013-MS1)</b>											
<b>Source: IQE0810-02</b>											
Benzene	22.9	2.0	0.28	ug/l	25.0	ND	92	65-125			
Bromobenzene	23.4	5.0	0.27	ug/l	25.0	ND	94	70-125			
Bromoform	23.2	5.0	0.32	ug/l	25.0	ND	93	65-135			
Bromochloromethane	23.5	2.0	0.30	ug/l	25.0	ND	94	70-135			
Bromodichloromethane	23.1	5.0	0.40	ug/l	25.0	ND	92	55-135			
Bromomethane	22.3	5.0	0.42	ug/l	25.0	ND	89	55-145			
n-Butylbenzene	24.0	5.0	0.37	ug/l	25.0	ND	96	65-135			
sec-Butylbenzene	23.5	5.0	0.25	ug/l	25.0	ND	94	70-125			
tert-Butylbenzene	22.9	5.0	0.22	ug/l	25.0	ND	92	65-130			
Carbon tetrachloride	24.8	5.0	0.28	ug/l	25.0	ND	99	65-140			
Chlorobenzene	23.3	2.0	0.36	ug/l	25.0	ND	93	75-125			
Chloroethane	21.9	5.0	0.40	ug/l	25.0	ND	88	55-140			
Chloroform	23.7	2.0	0.33	ug/l	25.0	2.2	86	65-135			
Chloromethane	22.9	5.0	0.40	ug/l	25.0	ND	92	45-145			
2-Chlorotoluene	22.4	5.0	0.28	ug/l	25.0	ND	90	65-135			
4-Chlorotoluene	22.9	5.0	0.29	ug/l	25.0	ND	92	70-135			
Dibromochloromethane	23.8	2.0	0.28	ug/l	25.0	ND	95	65-140			
1,2-Dibromo-3-chloropropane	20.8	5.0	0.97	ug/l	25.0	ND	83	45-145			
1,2-Dibromoethane (EDB)	22.9	2.0	0.40	ug/l	25.0	ND	92	70-130			
Dibromomethane	23.7	2.0	0.36	ug/l	25.0	ND	95	65-135			
1,2-Dichlorobenzene	23.5	2.0	0.32	ug/l	25.0	ND	94	75-125			
1,3-Dichlorobenzene	23.2	2.0	0.35	ug/l	25.0	ND	93	75-125			
1,4-Dichlorobenzene	22.8	2.0	0.37	ug/l	25.0	ND	91	75-125			
Dichlorodifluoromethane	23.7	5.0	0.79	ug/l	25.0	ND	95	25-155			
1,1-Dichloroethane	21.8	2.0	0.27	ug/l	25.0	ND	87	65-130			
1,2-Dichloroethane	23.0	2.0	0.28	ug/l	25.0	ND	92	60-140			
1,1-Dichloroethene	20.2	5.0	0.42	ug/l	25.0	ND	81	60-130			
cis-1,2-Dichloroethene	21.3	2.0	0.32	ug/l	25.0	ND	85	65-130			
trans-1,2-Dichloroethene	21.7	2.0	0.27	ug/l	25.0	ND	87	65-130			
1,2-Dichloropropane	22.1	2.0	0.35	ug/l	25.0	ND	88	65-130			
1,3-Dichloropropane	21.6	2.0	0.32	ug/l	25.0	ND	86	65-135			
2,2-Dichloropropane	23.1	2.0	0.34	ug/l	25.0	ND	92	60-145			
1,1-Dichloropropene	23.2	2.0	0.28	ug/l	25.0	ND	93	70-135			
cis-1,3-Dichloropropene	22.0	2.0	0.22	ug/l	25.0	ND	88	70-130			
trans-1,3-Dichloropropene	21.9	2.0	0.32	ug/l	25.0	ND	88	65-135			

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE0810

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09013 Extracted: 05/09/07</b>											
<b>Matrix Spike Analyzed: 05/09/2007 (7E09013-MS1)</b>											
<b>Source: IQE0810-02</b>											
Ethylbenzene	24.7	2.0	0.25	ug/l	25.0	ND	99	65-130			
Hexachlorobutadiene	28.8	5.0	0.38	ug/l	25.0	ND	115	60-135			
Isopropylbenzene	26.3	2.0	0.25	ug/l	25.0	ND	105	70-135			
p-Isopropyltoluene	23.4	2.0	0.28	ug/l	25.0	ND	94	65-130			
Meihylene chloride	20.4	5.0	0.95	ug/l	25.0	ND	82	50-135			
Naphthalene	23.7	5.0	0.41	ug/l	25.0	ND	95	50-140			
n-Propylbenzene	24.6	2.0	0.27	ug/l	25.0	ND	98	70-135			
Styrene	23.8	2.0	0.16	ug/l	25.0	ND	95	50-145			
1,1,1,2-Tetrachloroethane	24.2	5.0	0.27	ug/l	25.0	ND	97	65-140			
1,1,2,2-Tetrachloroethane	19.9	2.0	0.24	ug/l	25.0	ND	80	55-135			
Tetrachloroethene	25.3	2.0	0.32	ug/l	25.0	ND	101	65-130			
Toluene	23.8	2.0	0.36	ug/l	25.0	ND	95	70-125			
1,2,3-Trichlorobenzene	26.5	5.0	0.30	ug/l	25.0	ND	106	60-135			
1,2,4-Trichlorobenzene	28.2	5.0	0.48	ug/l	25.0	ND	113	65-135			
1,1,1-Trichloroethane	22.3	2.0	0.30	ug/l	25.0	ND	89	65-140			
1,1,2-Trichloroethane	22.4	2.0	0.30	ug/l	25.0	ND	90	65-130			
Trichloroethene	23.8	2.0	0.26	ug/l	25.0	ND	95	65-125			
Trichlorofluoromethane	25.5	5.0	0.34	ug/l	25.0	3.5	88	60-145			
1,2,3-Trichloropropane	20.5	10	0.40	ug/l	25.0	ND	82	55-135			
1,2,4-Trimethylbenzene	22.9	2.0	0.23	ug/l	25.0	ND	92	55-135			
1,3,5-Trimethylbenzene	23.4	2.0	0.26	ug/l	25.0	ND	94	70-130			
Vinyl chloride	24.9	5.0	0.30	ug/l	25.0	ND	100	45-140			
o-Xylene	24.5	2.0	0.30	ug/l	25.0	ND	98	65-125			
m,p-Xylenes	50.1	2.0	0.60	ug/l	50.0	ND	100	65-130			
Xylenes, Total	74.6	4.0	0.90	ug/l	75.0	ND	99	60-130			
Di-isopropyl Ether (DIPE)	20.9	5.0	0.25	ug/l	25.0	ND	84	60-140			
Ethyl tert-Butyl Ether (ETBE)	22.0	5.0	0.28	ug/l	25.0	ND	88	60-135			
tert-Amyl Methyl Ether (TAME)	22.7	5.0	0.33	ug/l	25.0	ND	91	60-140			
Methyl-tert-butyl Ether (MTBE)	21.9	5.0	0.32	ug/l	25.0	ND	88	55-145			
tert-Butanol (TBA)	146	50	4.9	ug/l	125	ND	117	65-140			
Surrogate Dibromofluoromethane	22.9			ug/l	25.0		92	80-120			
Surrogate Toluene-d8	25.5			ug/l	25.0		102	80-120			
Surrogate 4-Bromofluorobenzene	24.5			ug/l	25.0		98	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09013 Extracted: 05/09/07</b>											
<b>Matrix Spike Dup Analyzed: 05/09/2007 (7E09013-MSD1)</b>											
<b>Source: IQE0810-02</b>											
Benzene	22.0	2.0	0.28	ug/l	25.0	ND	88	65-125	4	20	
Bromobenzene	22.8	5.0	0.27	ug/l	25.0	ND	91	70-125	3	20	
Bromoform	23.4	5.0	0.32	ug/l	25.0	ND	94	65-135	1	25	
Bromochloromethane	22.3	2.0	0.30	ug/l	25.0	ND	89	70-135	5	20	
Bromodichloromethane	21.2	5.0	0.40	ug/l	25.0	ND	85	55-135	9	25	
Bromomethane	22.2	5.0	0.42	ug/l	25.0	ND	89	55-145	0	25	
Carbon tetrachloride	23.3	5.0	0.37	ug/l	25.0	ND	93	65-135	3	20	
Chlorobenzene	22.6	5.0	0.25	ug/l	25.0	ND	90	70-125	4	20	
Chloroethane	22.1	5.0	0.22	ug/l	25.0	ND	88	65-130	4	20	
Chloroform	23.4	5.0	0.28	ug/l	25.0	ND	94	65-140	6	25	
Chloromethane	22.4	2.0	0.36	ug/l	25.0	ND	90	75-125	4	20	
Dibromochloromethane	22.8	5.0	0.40	ug/l	25.0	ND	91	55-140	4	25	
2-Chlorotoluene	22.9	2.0	0.28	ug/l	25.0	ND	92	65-140	4	25	
4-Chlorotoluene	21.7	5.0	0.28	ug/l	25.0	ND	87	65-135	3	20	
1,2-Dibromo-3-chloropropane	18.9	5.0	0.97	ug/l	25.0	ND	76	45-145	10	30	
1,2-Dibromoethane (EDB)	22.2	2.0	0.40	ug/l	25.0	ND	89	70-130	3	25	
Dibromomethane	23.4	2.0	0.36	ug/l	25.0	ND	94	65-135	1	25	
1,2-Dichlorobenzene	22.8	2.0	0.32	ug/l	25.0	ND	91	75-125	3	20	
1,3-Dichlorobenzene	23.2	2.0	0.35	ug/l	25.0	ND	93	75-125	0	20	
1,4-Dichlorobenzene	21.7	2.0	0.37	ug/l	25.0	ND	87	75-125	5	20	
Dichlorodifluoromethane	22.7	5.0	0.79	ug/l	25.0	ND	91	25-155	4	30	
1,1-Dichloroethane	21.8	2.0	0.27	ug/l	25.0	ND	87	65-130	0	20	
1,2-Dichloroethane	21.7	2.0	0.28	ug/l	25.0	ND	87	60-140	6	20	
1,1-Dichloroethene	20.1	5.0	0.42	ug/l	25.0	ND	80	60-130	1	20	
cis-1,2-Dichloroethene	21.6	2.0	0.32	ug/l	25.0	ND	86	65-130	1	20	
trans-1,2-Dichloroethene	22.2	2.0	0.27	ug/l	25.0	ND	89	65-130	2	20	
1,2-Dichloropropane	21.7	2.0	0.35	ug/l	25.0	ND	87	65-130	2	20	
1,3-Dichloropropane	21.6	2.0	0.32	ug/l	25.0	ND	86	65-135	0	25	
2,2-Dichloropropane	22.4	2.0	0.34	ug/l	25.0	ND	90	60-145	3	25	
1,1-Dichloropropene	22.0	2.0	0.28	ug/l	25.0	ND	88	70-135	5	20	
cis-1,3-Dichloropropene	21.4	2.0	0.22	ug/l	25.0	ND	86	70-130	3	20	
trans-1,3-Dichloropropene	21.2	2.0	0.32	ug/l	25.0	ND	85	65-135	3	25	

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09013 Extracted: 05/09/07</b>											
<b>Matrix Spike Dup Analyzed: 05/09/2007 (7E09013-MSD1)</b>											
<b>Source: IQE0810-02</b>											
Ethylbenzene	23.1	2.0	0.25	ug/l	25.0	ND	92	65-130	7	20	
Hexachlorobutadiene	26.4	5.0	0.38	ug/l	25.0	ND	106	60-135	9	20	
Isopropylbenzene	26.0	2.0	0.25	ug/l	25.0	ND	104	70-135	1	20	
p-Isopropyltoluene	22.7	2.0	0.28	ug/l	25.0	ND	91	65-130	3	20	
Methylene chloride	20.9	5.0	0.95	ug/l	25.0	ND	84	50-135	2	20	
Naphthalene	22.0	5.0	0.41	ug/l	25.0	ND	88	50-140	7	30	
n-Propylbenzene	23.4	2.0	0.27	ug/l	25.0	ND	94	70-135	5	20	
Styrene	22.4	2.0	0.16	ug/l	25.0	ND	90	50-145	6	30	
1,1,1,2-Tetrachloroethane	22.8	5.0	0.27	ug/l	25.0	ND	91	65-140	6	20	
1,1,2,2-Tetrachloroethane	19.8	2.0	0.24	ug/l	25.0	ND	79	55-135	1	30	
Tetrachloroethene	23.8	2.0	0.32	ug/l	25.0	ND	95	65-130	6	20	
Toluene	23.2	2.0	0.36	ug/l	25.0	ND	93	70-125	3	20	
1,2,3-Trichlorobenzene	24.4	5.0	0.30	ug/l	25.0	ND	98	60-135	8	20	
1,2,4-Trichlorobenzene	26.0	5.0	0.48	ug/l	25.0	ND	104	65-135	8	20	
1,1,1-Trichloroethane	21.8	2.0	0.30	ug/l	25.0	ND	87	65-140	2	20	
1,1,2-Trichloroethane	21.5	2.0	0.30	ug/l	25.0	ND	86	65-130	4	25	
Trichloroethene	22.9	2.0	0.26	ug/l	25.0	ND	92	65-125	4	20	
Trichlorofluoromethane	24.3	5.0	0.34	ug/l	25.0	3.5	83	60-145	5	25	
1,2,3-Trichloropropane	19.5	10	0.40	ug/l	25.0	ND	78	55-135	5	30	
1,2,4-Trimethylbenzene	22.4	2.0	0.23	ug/l	25.0	ND	90	55-135	2	25	
1,3,5-Trimethylbenzene	22.8	2.0	0.26	ug/l	25.0	ND	91	70-130	3	20	
Vinyl chloride	25.3	5.0	0.30	ug/l	25.0	ND	101	45-140	2	30	
o-Xylene	23.0	2.0	0.30	ug/l	25.0	ND	92	65-125	6	20	
m,p-Xylenes	48.5	2.0	0.60	ug/l	50.0	ND	97	65-130	3	25	
Xylenes, Total	71.5	4.0	0.90	ug/l	75.0	ND	95	60-130	4	20	
Di-isopropyl Ether (DIPE)	21.6	5.0	0.25	ug/l	25.0	ND	86	60-140	3	25	
Ethyl tert-Butyl Ether (ETBE)	22.4	5.0	0.28	ug/l	25.0	ND	90	60-135	2	25	
tert-Amyl Methyl Ether (TAME)	23.0	5.0	0.33	ug/l	25.0	ND	92	60-140	1	30	
Methyl-tert-butyl Ether (MTBE)	22.4	5.0	0.32	ug/l	25.0	ND	90	55-145	2	25	
tert-Butanol (TBA)	131	50	4.9	ug/l	125	ND	105	65-140	11	25	
Surrogate Dibromofluoromethane	23.0			ug/l	25.0		92	80-120			
Surrogate Toluene-d8	25.5			ug/l	25.0		102	80-120			
Surrogate 4-Bromofluorobenzene	23.4			ug/l	25.0		94	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 7E09031 Extracted: 05/09/07</u>											
<b>Blank Analyzed: 05/09/2007 (7E09031-BLK1)</b>											
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.40	ug/l							
Bromomethane	ND	5.0	0.42	ug/l							
n-Butylbenzene	ND	5.0	0.37	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
tert-Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.40	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.40	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.97	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.40	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.42	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.32	ug/l							
2,2-Dichloropropane	ND	2.0	0.34	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.32	ug/l							

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### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09031 Extracted: 05/09/07</b>											
<b>Blank Analyzed: 05/09/2007 (7E09031-BLK1)</b>											
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.95	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.27	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.30	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.40	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.30	ug/l							
o-Xylene	ND	2.0	0.30	ug/l							
m,p-Xylenes	ND	2.0	0.60	ug/l							
Xylenes, Total	ND	4.0	0.90	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
tert-Butanol (TBA)	ND	50	4.9	ug/l							
Surrogate Dibromofluoromethane	23.2			ug/l	25.0		93	80-120			
Surrogate Toluene-d8	24.6			ug/l	25.0		98	80-120			
Surrogate 4-Bromofluorobenzene	22.7			ug/l	25.0		91	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09031 Extracted: 05/09/07</b>											
<b>LCS Analyzed: 05/09/2007 (7E09031-BS1)</b>											
Benzene	22.2	2.0	0.28	ug/l	25.0	89	70-120				
Bromobenzene	23.4	5.0	0.27	ug/l	25.0	94	75-120				
Bromochloromethane	22.4	5.0	0.32	ug/l	25.0	90	70-130				
Bromodichloromethane	21.9	2.0	0.30	ug/l	25.0	88	70-135				
Bromoform	23.1	5.0	0.40	ug/l	25.0	92	55-130				
Bromomethane	21.9	5.0	0.42	ug/l	25.0	88	65-140				
n-Butylbenzene	23.5	5.0	0.37	ug/l	25.0	94	70-130				
sec-Butylbenzene	22.6	5.0	0.25	ug/l	25.0	90	70-125				
tert-Butylbenzene	22.5	5.0	0.22	ug/l	25.0	90	70-125				
Carbon tetrachloride	23.8	5.0	0.28	ug/l	25.0	95	65-140				
Chlorobenzene	22.9	2.0	0.36	ug/l	25.0	92	75-120				
Chloroethane	22.5	5.0	0.40	ug/l	25.0	90	60-140				
Chloroform	20.0	2.0	0.33	ug/l	25.0	80	70-130				
Chloromethane	26.0	5.0	0.40	ug/l	25.0	104	50-140				
2-Chlorotoluene	22.0	5.0	0.28	ug/l	25.0	88	70-125				
4-Chlorotoluene	22.1	5.0	0.29	ug/l	25.0	88	75-125				
Dibromochloromethane	23.7	2.0	0.28	ug/l	25.0	95	70-140				
1,2-Dibromo-3-chloropropane	22.4	5.0	0.97	ug/l	25.0	90	50-135				
1,2-Dibromoethane (EDB)	23.9	2.0	0.40	ug/l	25.0	96	75-125				
Dibromomethane	23.3	2.0	0.36	ug/l	25.0	93	70-125				
1,2-Dichlorobenzene	23.3	2.0	0.32	ug/l	25.0	93	75-120				
1,3-Dichlorobenzene	23.5	2.0	0.35	ug/l	25.0	94	75-120				
1,4-Dichlorobenzene	22.2	2.0	0.37	ug/l	25.0	89	75-120				
Dichlorodifluoromethane	25.9	5.0	0.79	ug/l	25.0	104	35-155				
1,1-Dichloroethane	20.6	2.0	0.27	ug/l	25.0	82	70-125				
1,2-Dichloroethane	22.2	2.0	0.28	ug/l	25.0	89	60-140				
1,1-Dichloroethene	19.4	5.0	0.42	ug/l	25.0	78	70-125				
cis-1,2-Dichloroethene	20.3	2.0	0.32	ug/l	25.0	81	70-125				
trans-1,2-Dichloroethene	21.4	2.0	0.27	ug/l	25.0	86	70-125				
1,2-Dichloropropane	21.6	2.0	0.35	ug/l	25.0	86	70-125				
1,3-Dichloropropane	22.1	2.0	0.32	ug/l	25.0	88	70-120				
2,2-Dichloropropane	21.5	2.0	0.34	ug/l	25.0	86	65-140				
1,1-Dichloropropene	22.5	2.0	0.28	ug/l	25.0	90	75-130				
cis-1,3-Dichloropropene	20.9	2.0	0.22	ug/l	25.0	84	75-125				
trans-1,3-Dichloropropene	21.3	2.0	0.32	ug/l	25.0	85	70-125				

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54205.001  
Report Number: IQE0810

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09031 Extracted: 05/09/07</b>											
<b>LCS Analyzed: 05/09/2007 (7E09031-BS1)</b>											
Ethylbenzene	24.2	2.0	0.25	ug/l	25.0		97	75-125			
Hexachlorobutadiene	29.5	5.0	0.38	ug/l	25.0		118	65-135			
Isopropylbenzene	26.2	2.0	0.25	ug/l	25.0		105	75-130			
p-Isopropyltoluene	23.3	2.0	0.28	ug/l	25.0		93	75-125			
Meihylene chloride	19.1	5.0	0.95	ug/l	25.0		76	55-130			
Naphthalene	24.6	5.0	0.41	ug/l	25.0		98	55-135			
n-Propylbenzene	24.6	2.0	0.27	ug/l	25.0		98	75-130			
Styrene	25.2	2.0	0.16	ug/l	25.0		101	75-130			
1,1,1,2-Tetrachloroethane	23.2	5.0	0.27	ug/l	25.0		93	70-130			
1,1,2,2-Tetrachloroethane	20.4	2.0	0.24	ug/l	25.0		82	55-130			
Tetrachloroethene	25.4	2.0	0.32	ug/l	25.0		102	70-125			
Toluene	23.2	2.0	0.36	ug/l	25.0		93	70-120			
1,2,3-Trichlorobenzene	26.4	5.0	0.30	ug/l	25.0		106	65-125			
1,2,4-Trichlorobenzene	28.0	5.0	0.48	ug/l	25.0		112	70-135			
1,1,1-Trichloroethane	21.1	2.0	0.30	ug/l	25.0		84	65-135			
1,1,2-Trichloroethane	22.2	2.0	0.30	ug/l	25.0		89	70-125			
Trichloroethene	23.0	2.0	0.26	ug/l	25.0		92	70-125			
Trichlorofluoromethane	21.1	5.0	0.34	ug/l	25.0		84	65-145			
1,2,3-Trichloropropane	21.7	10	0.40	ug/l	25.0		87	60-130			
1,2,4-Trimethylbenzene	23.2	2.0	0.23	ug/l	25.0		93	75-125			
1,3,5-Trimethylbenzene	23.0	2.0	0.26	ug/l	25.0		92	75-125			
Vinyl chloride	26.2	5.0	0.30	ug/l	25.0		105	55-135			
o-Xylene	24.2	2.0	0.30	ug/l	25.0		97	75-125			
m,p-Xylenes	49.2	2.0	0.60	ug/l	50.0		98	75-125			
Xylenes, Total	73.4	4.0	0.90	ug/l	75.0		98	70-125			
Di-isopropyl Ether (DIPE)	20.4	5.0	0.25	ug/l	25.0		82	60-135			
Ethyl tert-Butyl Ether (ETBE)	21.1	5.0	0.28	ug/l	25.0		84	65-135			
tert-Amyl Methyl Ether (TAME)	21.3	5.0	0.33	ug/l	25.0		85	60-135			
Methyl-tert-butyl Ether (MTBE)	21.0	5.0	0.32	ug/l	25.0		84	60-135			
tert-Butanol (TBA)	130	50	4.9	ug/l	125		104	70-135			
Surrogate Dibromofluoromethane	22.2			ug/l	25.0		89	80-120			
Surrogate Toluene-d8	25.7			ug/l	25.0		103	80-120			
Surrogate 4-Bromofluorobenzene	23.9			ug/l	25.0		96	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09031 Extracted: 05/09/07</b>											
<b>Matrix Spike Analyzed: 05/09/2007 (7E09031-MS1)</b>											
<b>Source: IQE0742-01</b>											
Benzene	22.8	2.0	0.28	ug/l	25.0	ND	91	65-125			
Bromobenzene	24.0	5.0	0.27	ug/l	25.0	ND	96	70-125			
Bromoform	24.2	5.0	0.32	ug/l	25.0	ND	97	65-135			
Bromochloromethane	23.2	2.0	0.30	ug/l	25.0	ND	93	70-135			
Bromodichloromethane	24.0	5.0	0.40	ug/l	25.0	ND	96	55-135			
Bromomethane	23.1	5.0	0.42	ug/l	25.0	ND	92	55-145			
n-Butylbenzene	23.5	5.0	0.37	ug/l	25.0	ND	94	65-135			
sec-Butylbenzene	23.2	5.0	0.25	ug/l	25.0	ND	93	70-125			
tert-Butylbenzene	22.8	5.0	0.22	ug/l	25.0	ND	91	65-130			
Carbon tetrachloride	25.1	5.0	0.28	ug/l	25.0	ND	100	65-140			
Chlorobenzene	23.4	2.0	0.36	ug/l	25.0	ND	94	75-125			
Chloroethane	23.4	5.0	0.40	ug/l	25.0	ND	94	55-140			
Chloroform	21.4	2.0	0.33	ug/l	25.0	ND	86	65-135			
Chloromethane	25.9	5.0	0.40	ug/l	25.0	ND	104	45-145			
2-Chlorotoluene	22.1	5.0	0.28	ug/l	25.0	ND	88	65-135			
4-Chlorotoluene	22.9	5.0	0.29	ug/l	25.0	ND	92	70-135			
Dibromochloromethane	25.0	2.0	0.28	ug/l	25.0	ND	100	65-140			
1,2-Dibromo-3-chloropropane	21.0	5.0	0.97	ug/l	25.0	ND	84	45-145			
1,2-Dibromoethane (EDB)	23.6	2.0	0.40	ug/l	25.0	ND	94	70-130			
Dibromomethane	24.6	2.0	0.36	ug/l	25.0	ND	98	65-135			
1,2-Dichlorobenzene	23.4	2.0	0.32	ug/l	25.0	ND	94	75-125			
1,3-Dichlorobenzene	24.0	2.0	0.35	ug/l	25.0	ND	96	75-125			
1,4-Dichlorobenzene	22.3	2.0	0.37	ug/l	25.0	ND	89	75-125			
Dichlorodifluoromethane	27.0	5.0	0.79	ug/l	25.0	ND	108	25-155			
1,1-Dichloroethane	21.6	2.0	0.27	ug/l	25.0	ND	86	65-130			
1,2-Dichloroethane	23.3	2.0	0.28	ug/l	25.0	ND	93	60-140			
1,1-Dichloroethene	19.9	5.0	0.42	ug/l	25.0	ND	80	60-130			
cis-1,2-Dichloroethene	21.7	2.0	0.32	ug/l	25.0	ND	87	65-130			
trans-1,2-Dichloroethene	22.0	2.0	0.27	ug/l	25.0	ND	88	65-130			
1,2-Dichloropropane	22.2	2.0	0.35	ug/l	25.0	ND	89	65-130			
1,3-Dichloropropane	22.4	2.0	0.32	ug/l	25.0	ND	90	65-135			
2,2-Dichloropropane	22.4	2.0	0.34	ug/l	25.0	ND	90	60-145			
1,1-Dichloropropene	23.2	2.0	0.28	ug/l	25.0	ND	93	70-135			
cis-1,3-Dichloropropene	22.1	2.0	0.22	ug/l	25.0	ND	88	70-130			
trans-1,3-Dichloropropene	22.2	2.0	0.32	ug/l	25.0	ND	89	65-135			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09031 Extracted: 05/09/07</b>											
<b>Matrix Spike Analyzed: 05/09/2007 (7E09031-MS1)</b>											
<b>Source: IQE0742-01</b>											
Ethylbenzene	24.8	2.0	0.25	ug/l	25.0	ND	99	65-130			
Hexachlorobutadiene	28.9	5.0	0.38	ug/l	25.0	ND	116	60-135			
Isopropylbenzene	25.8	2.0	0.25	ug/l	25.0	ND	103	70-135			
p-Isopropyltoluene	23.6	2.0	0.28	ug/l	25.0	ND	94	65-130			
Methylene chloride	20.3	5.0	0.95	ug/l	25.0	ND	81	50-135			
Naphthalene	24.3	5.0	0.41	ug/l	25.0	ND	97	50-140			
n-Propylbenzene	24.2	2.0	0.27	ug/l	25.0	ND	97	70-135			
Styrene	12.7	2.0	0.16	ug/l	25.0	ND	51	50-145			
1,1,1,2-Tetrachloroethane	24.3	5.0	0.27	ug/l	25.0	ND	97	65-140			
1,1,2,2-Tetrachloroethane	20.7	2.0	0.24	ug/l	25.0	ND	83	55-135			
Tetrachloroethene	24.9	2.0	0.32	ug/l	25.0	ND	100	65-130			
Toluene	23.7	2.0	0.36	ug/l	25.0	ND	95	70-125			
1,2,3-Trichlorobenzene	27.7	5.0	0.30	ug/l	25.0	ND	111	60-135			
1,2,4-Trichlorobenzene	29.2	5.0	0.48	ug/l	25.0	ND	117	65-135			
1,1,1-Trichloroethane	22.2	2.0	0.30	ug/l	25.0	ND	89	65-140			
1,1,2-Trichloroethane	23.9	2.0	0.30	ug/l	25.0	ND	96	65-130			
Trichloroethene	23.1	2.0	0.26	ug/l	25.0	ND	92	65-125			
Trichlorofluoromethane	22.2	5.0	0.34	ug/l	25.0	ND	89	60-145			
1,2,3-Trichloropropane	21.2	10	0.40	ug/l	25.0	ND	85	55-135			
1,2,4-Trimethylbenzene	23.1	2.0	0.23	ug/l	25.0	ND	92	55-135			
1,3,5-Trimethylbenzene	23.4	2.0	0.26	ug/l	25.0	ND	94	70-130			
Vinyl chloride	27.1	5.0	0.30	ug/l	25.0	ND	108	45-140			
o-Xylene	25.0	2.0	0.30	ug/l	25.0	ND	100	65-125			
m,p-Xylenes	49.7	2.0	0.60	ug/l	50.0	ND	99	65-130			
Xylenes, Total	74.6	4.0	0.90	ug/l	75.0	ND	99	60-130			
Di-isopropyl Ether (DIPE)	21.8	5.0	0.25	ug/l	25.0	ND	87	60-140			
Ethyl tert-Butyl Ether (ETBE)	22.5	5.0	0.28	ug/l	25.0	ND	90	60-135			
tert-Amyl Methyl Ether (TAME)	23.7	5.0	0.33	ug/l	25.0	ND	95	60-140			
Methyl-tert-butyl Ether (MTBE)	48.2	5.0	0.32	ug/l	25.0	27	85	55-145			
tert-Butanol (TBA)	442	50	4.9	ug/l	125	300	114	65-140			
Surrogate Dibromofluoromethane	22.6			ug/l	25.0		90	80-120			
Surrogate Toluene-d8	25.2			ug/l	25.0		101	80-120			
Surrogate 4-Bromofluorobenzene	24.1			ug/l	25.0		96	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09031 Extracted: 05/09/07</b>											
<b>Matrix Spike Dup Analyzed: 05/09/2007 (7E09031-MSD1)</b>											
<b>Source: IQE0742-01</b>											
Benzene	21.4	2.0	0.28	ug/l	25.0	ND	86	65-125	6	20	
Bromobenzene	21.8	5.0	0.27	ug/l	25.0	ND	87	70-125	10	20	
Bromoform	21.4	5.0	0.32	ug/l	25.0	ND	86	65-135	12	25	
Bromochloromethane	21.0	2.0	0.30	ug/l	25.0	ND	84	70-135	10	20	
Bromodichloromethane	21.5	5.0	0.40	ug/l	25.0	ND	86	55-135	11	25	
Bromomethane	21.4	5.0	0.42	ug/l	25.0	ND	86	55-145	8	25	
Carbon tetrachloride	22.1	5.0	0.28	ug/l	25.0	ND	88	65-140	13	25	
Chlorobenzene	21.2	2.0	0.36	ug/l	25.0	ND	85	75-125	10	20	
Chloroethane	21.7	5.0	0.40	ug/l	25.0	ND	87	55-140	8	25	
Chloroform	19.6	2.0	0.33	ug/l	25.0	ND	78	65-135	9	20	
Chloromethane	24.7	5.0	0.40	ug/l	25.0	ND	99	45-145	5	25	
2-Chlorotoluene	20.5	5.0	0.28	ug/l	25.0	ND	82	65-135	8	20	
4-Chlorotoluene	20.7	5.0	0.29	ug/l	25.0	ND	83	70-135	10	20	
Dibromochloromethane	21.9	2.0	0.28	ug/l	25.0	ND	88	65-140	13	25	
1,2-Dibromo-3-chloropropane	18.6	5.0	0.97	ug/l	25.0	ND	74	45-145	12	30	
1,2-Dibromoethane (EDB)	21.5	2.0	0.40	ug/l	25.0	ND	86	70-130	9	25	
Dibromomethane	22.0	2.0	0.36	ug/l	25.0	ND	88	65-135	11	25	
1,2-Dichlorobenzene	22.1	2.0	0.32	ug/l	25.0	ND	88	75-125	6	20	
1,3-Dichlorobenzene	22.2	2.0	0.35	ug/l	25.0	ND	89	75-125	8	20	
1,4-Dichlorobenzene	20.4	2.0	0.37	ug/l	25.0	ND	82	75-125	9	20	
Dichlorodifluoromethane	24.5	5.0	0.79	ug/l	25.0	ND	98	25-155	10	30	
1,1-Dichloroethane	20.2	2.0	0.27	ug/l	25.0	ND	81	65-130	7	20	
1,2-Dichloroethane	20.6	2.0	0.28	ug/l	25.0	ND	82	60-140	12	20	
1,1-Dichloroethene	19.0	5.0	0.42	ug/l	25.0	ND	76	60-130	5	20	
cis-1,2-Dichloroethene	20.0	2.0	0.32	ug/l	25.0	ND	80	65-130	8	20	
trans-1,2-Dichloroethene	20.8	2.0	0.27	ug/l	25.0	ND	83	65-130	6	20	
1,2-Dichloropropane	20.4	2.0	0.35	ug/l	25.0	ND	82	65-130	8	20	
1,3-Dichloropropane	19.8	2.0	0.32	ug/l	25.0	ND	79	65-135	12	25	
2,2-Dichloropropane	20.0	2.0	0.34	ug/l	25.0	ND	80	60-145	11	25	
1,1-Dichloropropene	21.3	2.0	0.28	ug/l	25.0	ND	85	70-135	9	20	
cis-1,3-Dichloropropene	20.4	2.0	0.22	ug/l	25.0	ND	82	70-130	8	20	
trans-1,3-Dichloropropene	20.3	2.0	0.32	ug/l	25.0	ND	81	65-135	9	25	

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09031 Extracted: 05/09/07</b>											
<b>Matrix Spike Dup Analyzed: 05/09/2007 (7E09031-MSD1)</b>											
<b>Source: IQE0742-01</b>											
Ethylbenzene	22.6	2.0	0.25	ug/l	25.0	ND	90	65-130	9	20	
Hexachlorobutadiene	27.7	5.0	0.38	ug/l	25.0	ND	111	60-135	4	20	
Isopropylbenzene	24.5	2.0	0.25	ug/l	25.0	ND	98	70-135	5	20	
p-Isopropyltoluene	21.8	2.0	0.28	ug/l	25.0	ND	87	65-130	8	20	
Methylene chloride	19.2	5.0	0.95	ug/l	25.0	ND	77	50-135	6	20	
Naphthalene	23.5	5.0	0.41	ug/l	25.0	ND	94	50-140	3	30	
n-Propylbenzene	22.2	2.0	0.27	ug/l	25.0	ND	89	70-135	9	20	
Styrene	8.79	2.0	0.16	ug/l	25.0	ND	35	50-145	36	30	MZ, R-3
1,1,1,2-Tetrachloroethane	22.0	5.0	0.27	ug/l	25.0	ND	88	65-140	10	20	
1,1,2,2-Tetrachloroethane	19.3	2.0	0.24	ug/l	25.0	ND	77	55-135	7	30	
Tetrachloroethene	23.6	2.0	0.32	ug/l	25.0	ND	94	65-130	5	20	
Toluene	22.3	2.0	0.36	ug/l	25.0	ND	89	70-125	6	20	
1,2,3-Trichlorobenzene	25.8	5.0	0.30	ug/l	25.0	ND	103	60-135	7	20	
1,2,4-Trichlorobenzene	26.2	5.0	0.48	ug/l	25.0	ND	105	65-135	11	20	
1,1,1-Trichloroethane	20.0	2.0	0.30	ug/l	25.0	ND	80	65-140	10	20	
1,1,2-Trichloroethane	20.6	2.0	0.30	ug/l	25.0	ND	82	65-130	15	25	
Trichloroethene	21.7	2.0	0.26	ug/l	25.0	ND	87	65-125	6	20	
Trichlorofluoromethane	20.8	5.0	0.34	ug/l	25.0	ND	83	60-145	7	25	
1,2,3-Trichloropropane	19.1	10	0.40	ug/l	25.0	ND	76	55-135	10	30	
1,2,4-Trimethylbenzene	21.4	2.0	0.23	ug/l	25.0	ND	86	55-135	8	25	
1,3,5-Trimethylbenzene	21.2	2.0	0.26	ug/l	25.0	ND	85	70-130	10	20	
Vinyl chloride	25.8	5.0	0.30	ug/l	25.0	ND	103	45-140	5	30	
o-Xylene	22.5	2.0	0.30	ug/l	25.0	ND	90	65-125	11	20	
m,p-Xylenes	45.8	2.0	0.60	ug/l	50.0	ND	92	65-130	8	25	
Xylenes, Total	68.4	4.0	0.90	ug/l	75.0	ND	91	60-130	9	20	
Di-isopropyl Ether (DIPE)	20.2	5.0	0.25	ug/l	25.0	ND	81	60-140	8	25	
Ethyl tert-Butyl Ether (ETBE)	21.1	5.0	0.28	ug/l	25.0	ND	84	60-135	6	25	
tert-Amyl Methyl Ether (TAME)	21.9	5.0	0.33	ug/l	25.0	ND	88	60-140	8	30	
Methyl-tert-butyl Ether (MTBE)	47.1	5.0	0.32	ug/l	25.0	27	80	55-145	2	25	
tert-Butanol (TBA)	427	50	4.9	ug/l	125	300	102	65-140	3	25	
Surrogate Dibromofluoromethane	22.7			ug/l	25.0		91	80-120			
Surrogate Toluene-d8	25.3			ug/l	25.0		101	80-120			
Surrogate 4-Bromofluorobenzene	23.6			ug/l	25.0		94	80-120			

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Attention: Jennifer Wiley

Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## METHOD BLANK/QC DATA

### DISSOLVED GASES BY HEADSPACE EQUILIBRIUM (RSK-175 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E12049 Extracted: 05/12/07</b>											
<b>Blank Analyzed: 05/12/2007 (7E12049-BLK1)</b>											
Methane	ND	0.050	0.021	mg/l							
<b>LCS Analyzed: 05/12/2007 (7E12049-BS1)</b>											
Methane	1.32	0.050	0.021	mg/l	1.36		97	80-120			
<b>Matrix Spike Analyzed: 05/12/2007 (7E12049-MS1)</b>											
Methane	1.36	0.050	0.021	mg/l	1.36	ND	100	80-120			
<b>Matrix Spike Dup Analyzed: 05/12/2007 (7E12049-MSD1)</b>											
Methane	1.54	0.050	0.021	mg/l	1.36	ND	113	80-120	12	25	

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Sampled: 05/08/07  
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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
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Batch: 7E08123 Extracted: 05/08/07

**Blank Analyzed: 05/08/2007 (7E08123-BLK1)**

Nitrate-N	ND	0.11	0.060	mg/l
Sulfate	ND	0.50	0.15	mg/l

**LCS Analyzed: 05/08/2007 (7E08123-BS1)**

Nitrate-N	1.14	0.11	0.060	mg/l	1.13	101	90-110
Sulfate	9.63	0.50	0.15	mg/l	10.0	96	90-110

**Matrix Spike Analyzed: 05/08/2007 (7E08123-MS1)**

Nitrate-N	5.22	0.22	0.12	mg/l	1.13	4.2	90	80-120	
Sulfate	69.7	1.0	0.30	mg/l	10.0	62	77	80-120	MHA

**Matrix Spike Dup Analyzed: 05/08/2007 (7E08123-MSD1)**

Nitrate-N	5.30	0.22	0.12	mg/l	1.13	4.2	97	80-120	2	20
Sulfate	70.8	1.0	0.30	mg/l	10.0	62	88	80-120	2	20

Batch: 7E08134 Extracted: 05/08/07

**Blank Analyzed: 05/08/2007 (7E08134-BLK1)**

Chromium VI	ND	0.0020	0.00020	mg/l
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**LCS Analyzed: 05/08/2007 (7E08134-BS1)**

Chromium VI	0.0482	0.0020	0.00020	mg/l	0.0500	96	90-110
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**Matrix Spike Analyzed: 05/08/2007 (7E08134-MS1)**

Chromium VI	0.0517	0.0020	0.00020	mg/l	0.0500	ND	103	80-115
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**Matrix Spike Dup Analyzed: 05/08/2007 (7E08134-MSD1)**

Chromium VI	0.0517	0.0020	0.00020	mg/l	0.0500	ND	103	80-115	0	15
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Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E09090 Extracted: 05/09/07</b>											
<b>Blank Analyzed: 05/09/2007 (7E09090-BLK1)</b>											
Ferrous Iron	ND	0.10	0.10	mg/l							
<b>Duplicate Analyzed: 05/09/2007 (7E09090-DUP1)</b>											
Ferrous Iron	0.300	0.10	0.10	mg/l		Source: IQE0806-01	0.30		0	20	HFT
<b>Duplicate Analyzed: 05/09/2007 (7E09090-DUP2)</b>											
Ferrous Iron	ND	0.10	0.10	mg/l		Source: IQE0811-04	ND		20		HFT
<b>Batch: 7E17065 Extracted: 05/17/07</b>											
<b>Duplicate Analyzed: 05/17/2007 (7E17065-DUP1)</b>											
Alkalinity as CaCO <sub>3</sub>	480	2.0	2.0	mg/l		Source: IQE0659-01	480		0	20	
<b>Reference Analyzed: 05/17/2007 (7E17065-SRM1)</b>											
Alkalinity as CaCO <sub>3</sub>	168	2.0	2.0	mg/l	181		93	90-110			

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Project Manager

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Attention: Jennifer Wiley

Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## DATA QUALIFIERS AND DEFINITIONS

- HFT** The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- MHA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- R-3** The RPD exceeded the acceptance limit due to sample matrix effects.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

## ADDITIONAL COMMENTS

**For 8260 analyses:**

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

**For GRO (C4-C12):**

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

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54205.001  
Report Number: IQE0810

Sampled: 05/08/07  
Received: 05/08/07

## Certification Summary

### TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 300.0	Water	X	X
EPA 7199	Water	X	X
EPA 8015B	Water	X	X
EPA 8260B	Water	X	X
RSK-175 MOD.	Water	N/A	N/A
SM 3500-Fe D	Water		
SM2320B	Water	X	X

*Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at [www.testamericainc.com](http://www.testamericainc.com)*

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

# TestAmerica

ANALYTICAL TESTING CORPORATION

## CHAIN OF CUSTODY FORM

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TQE0810

Page 1 of 1

Client Name/Address: <i>ARCLADIS 881 3240 El Camino Real, Ste 200 Irvine CA 92607</i>			Project/PO Number: <i>Former CENCO Refinery B0054205</i>			Analysis Required										
Project Manager: <i>Jennifer Wiley</i>			Phone Number: <i>(714) 730-9052</i>			<i>00</i>	<i>00</i>	<i>00</i>	<i>00</i>	<i>00</i>	<i>00</i>	<i>00</i>	<i>00</i>	<i>00</i>		
Sampler: <i>Mother Zein</i>			Fax Number: <i>(714) 730-9345</i>			<i>00</i>	<i>00</i>	<i>00</i>	<i>00</i>	<i>00</i>	<i>00</i>	<i>00</i>	<i>00</i>	<i>00</i>		
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	<i>TQ</i>	<i>TQ</i>	<i>TQ</i>	<i>TQ</i>	<i>TQ</i>	<i>TQ</i>	<i>TQ</i>	<i>TQ</i>	<i>TQ</i>	
TB050807	W	VDA	3	05.08.07	0740	HCl	✓	✓								
MW-606-0507	W	VDA+ Poly	9		0830	Various	✓	✓	✓	✓	✓	✓	✓	✓	✓	
MW-605-0507	W	VDA+ Poly	9		0930		✓	✓	✓	✓	✓	✓	✓	✓	✓	
MW-605-0507-D	W	VDA+ Poly	9		0930		✓	✓	✓	✓	✓	✓	✓	✓	✓	
MW-607-0507	W	Poly	6		1050		✓	✓	✓							
MW-104A-0507	W	VDA	9		1345		✓	✓	✓	✓	✓	✓	✓	✓	✓	
W-7-0507	W	Poly	6		1330		✓	✓	✓							
W-8-0507	W	VDA	6		1510		✓	✓	✓							
MW-604-0507	W	Poly	6	↓	1530	↓	✓	✓	✓							
<i>No More Samples</i>																
Relinquished By: <i>Mother Zein</i>			Date/Time: <i>05.08.07 1635</i>			Received By: <i>Graham TAC</i>			Date/Time: <i>5/8/07 1635</i>			Turnaround Time: (Check)				
Relinquished By: <i>Graham TAC</i>			Date/Time: <i>5/8/07 1730</i>			Received By: <i>Angela R</i>			Date/Time: <i>5/08/07 1730</i>			same day _____ 72 hours _____				
Relinquished By:			Date/Time:			Received in Lab By:			Date/Time:			24 hours _____ 5 days _____				
												48 hours _____ normal _____				
												Sample Integrity: (Check) intact <input checked="" type="checkbox"/> on ice <input checked="" type="checkbox"/>				

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

## LABORATORY REPORT

Prepared For: Arcadis - Blasland, Bouck & Lee  
3240 El Camino Real, Suite 200  
Irvine, CA 92602

Attention: Jennifer Wiley

Project: Former Cenco Refinery - 2006  
54205.001

Sampled: 05/09/07  
Received: 05/09/07  
Issued: 05/18/07 16:11

NELAP #01108CA California ELAP#1197 CSDLAC #10256

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.*

*This entire report was reviewed and approved for release.*

## SAMPLE CROSS REFERENCE

LABORATORY ID	CLIENT ID	MATRIX
IQE0953-01	TB050907	Water
IQE0953-02	W_9_0507	Water
IQE0953-03	W_12_0507	Water
IQE0953-04	MW_105_0507	Water
IQE0953-05	MW_105_0507D	Water
IQE0953-06	MW_103_0507	Water
IQE0953-07	MW_205_0507	Water
IQE0953-08	MW_201_0507	Water
IQE0953-09	W_11_0507	Water

Reviewed By:



TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

Arcadis - Blasland, Bouck & Lee  
3240 El Camino Real, Suite 200  
Irvine, CA 92602  
Attention: Jennifer Wiley

Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE FUEL HYDROCARBONS (EPA 5030/8015M)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Date Qualifiers
<b>Sample ID: IQE0953-01 (TB050907 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E16044	30	50	ND	1	05/16/07	05/16/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0953-02 (W_9_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E16044	30	50	50	1	05/16/07	05/16/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0953-03 (W_12_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E16044	60	100	220	2	05/16/07	05/16/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0953-04 (MW_105_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E16044	30	50	150	1	05/16/07	05/16/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0953-05 (MW_105_0507D - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E16044	30	50	190	1	05/16/07	05/16/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0953-06 (MW_103_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E16044	30	50	220	1	05/16/07	05/16/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0953-07 (MW_205_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E16044	30	50	190	1	05/16/07	05/16/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE0953-08 (MW_201_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E16044	30	50	830	1	05/16/07	05/16/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									

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54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE FUEL HYDROCARBONS (EPA 5030/8015M)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQE0953-09 (W_11_0507 - Water)									Sampled: 05/09/07
Reporting Units: ug/l									
GRO (C4 - C12)	EPA 8015B	7E16044	30	50	540	1	05/16/07	05/16/07	
Surrogate: 4-BFB (FID) (65-140%)					111 %				

TestAmerica - Irvine, CA  
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Project Manager

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-01 (TB050907 - Water)</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
Bromobenzene	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/10/07	
Bromochloromethane	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/10/07	
Bromodichloromethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
Bromoform	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
Bromomethane	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/10/07	
n-Butylbenzene	EPA 8260B	7E10025	0.37	5.0	ND	1	05/10/07	05/10/07	
sec-Butylbenzene	EPA 8260B	7E10025	0.25	5.0	ND	1	05/10/07	05/10/07	
tert-Butylbenzene	EPA 8260B	7E10025	0.22	5.0	ND	1	05/10/07	05/10/07	
Carbon tetrachloride	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
Chlorobenzene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
Chloroethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
Chloroform	EPA 8260B	7E10025	0.33	2.0	ND	1	05/10/07	05/10/07	
Chloromethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
2-Chlorotoluene	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
4-Chlorotoluene	EPA 8260B	7E10025	0.29	5.0	ND	1	05/10/07	05/10/07	
Dibromochloromethane	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E10025	0.97	5.0	ND	1	05/10/07	05/10/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E10025	0.40	2.0	ND	1	05/10/07	05/10/07	
Dibromomethane	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
1,2-Dichlorobenzene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
1,3-Dichlorobenzene	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/10/07	
1,4-Dichlorobenzene	EPA 8260B	7E10025	0.37	2.0	ND	1	05/10/07	05/10/07	
Dichlorodifluoromethane	EPA 8260B	7E10025	0.79	5.0	ND	1	05/10/07	05/10/07	
1,1-Dichloroethane	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/10/07	
1,2-Dichloroethane	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
1,1-Dichloroethene	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/10/07	
cis-1,2-Dichloroethene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
trans-1,2-Dichloroethene	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/10/07	
1,2-Dichloropropane	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/10/07	
1,3-Dichloropropane	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
2,2-Dichloropropane	EPA 8260B	7E10025	0.34	2.0	ND	1	05/10/07	05/10/07	
1,1-Dichloropropene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
cis-1,3-Dichloropropene	EPA 8260B	7E10025	0.22	2.0	ND	1	05/10/07	05/10/07	
trans-1,3-Dichloropropene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
Ethylbenzene	EPA 8260B	7E10025	0.25	2.0	ND	1	05/10/07	05/10/07	
Hexachlorobutadiene	EPA 8260B	7E10025	0.38	5.0	ND	1	05/10/07	05/10/07	
Isopropylbenzene	EPA 8260B	7E10025	0.25	2.0	ND	1	05/10/07	05/10/07	
p-Isopropyltoluene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
Methylene chloride	EPA 8260B	7E10025	0.95	5.0	2.0	1	05/10/07	05/10/07	J
Naphthalene	EPA 8260B	7E10025	0.41	5.0	ND	1	05/10/07	05/10/07	

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

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 3240 El Camino Real, Suite 200  
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 Attention: Jennifer Wiley

Project ID: Former Ceneo Refinery - 2006  
 54205.001  
 Report Number: IQE0953

Sampled: 05/09/07  
 Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-01 (TB050907 - Water) - cont.</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/10/07	
Styrene	EPA 8260B	7E10025	0.16	2.0	ND	1	05/10/07	05/10/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/10/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E10025	0.24	2.0	ND	1	05/10/07	05/10/07	
Tetrachloroethene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
Toluene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E10025	0.30	5.0	ND	1	05/10/07	05/10/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E10025	0.48	5.0	ND	1	05/10/07	05/10/07	
1,1,1-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
1,1,2-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
Trichloroethene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/10/07	
Trichlorofluoromethane	EPA 8260B	7E10025	0.34	5.0	ND	1	05/10/07	05/10/07	
1,2,3-Trichloropropane	EPA 8260B	7E10025	0.40	10	ND	1	05/10/07	05/10/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E10025	0.23	2.0	ND	1	05/10/07	05/10/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/10/07	
Vinyl chloride	EPA 8260B	7E10025	0.30	5.0	ND	1	05/10/07	05/10/07	
o-Xylene	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
m,p-Xylenes	EPA 8260B	7E10025	0.60	2.0	ND	1	05/10/07	05/10/07	
Xylenes, Total	EPA 8260B	7E10025	0.90	4.0	ND	1	05/10/07	05/10/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E10025	0.25	5.0	ND	1	05/10/07	05/10/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E10025	0.33	5.0	ND	1	05/10/07	05/10/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/10/07	
tert-Butanol (TBA)	EPA 8260B	7E10025	4.9	50	ND	1	05/10/07	05/10/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					95 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					102 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					84 %				

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-02 (W_9_0507 - Water)</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
Bromobenzene	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/10/07	
Bromoform	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/10/07	
Bromochloromethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
Bromodichloromethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
Bromoform	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/10/07	
Bromomethane	EPA 8260B	7E10025	0.37	5.0	ND	1	05/10/07	05/10/07	
n-Butylbenzene	EPA 8260B	7E10025	0.25	5.0	ND	1	05/10/07	05/10/07	
sec-Butylbenzene	EPA 8260B	7E10025	0.22	5.0	ND	1	05/10/07	05/10/07	
Carbon tetrachloride	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
Chlorobenzene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
Chloroethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
Chloroform	EPA 8260B	7E10025	0.33	2.0	ND	1	05/10/07	05/10/07	
Chloromethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
2-Chlorotoluene	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
4-Chlorotoluene	EPA 8260B	7E10025	0.29	5.0	ND	1	05/10/07	05/10/07	
Dibromochloromethane	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E10025	0.97	5.0	ND	1	05/10/07	05/10/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E10025	0.40	2.0	ND	1	05/10/07	05/10/07	
Dibromomethane	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
1,2-Dichlorobenzene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
1,3-Dichlorobenzene	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/10/07	
1,4-Dichlorobenzene	EPA 8260B	7E10025	0.37	2.0	ND	1	05/10/07	05/10/07	
Dichlorodifluoromethane	EPA 8260B	7E10025	0.79	5.0	ND	1	05/10/07	05/10/07	
1,1-Dichloroethane	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/10/07	
1,2-Dichloroethane	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
1,1-Dichloroethene	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/10/07	
cis-1,2-Dichloroethene	EPA 8260B	7E10025	0.32	2.0	2.0	1	05/10/07	05/10/07	
trans-1,2-Dichloroethene	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/10/07	
1,2-Dichloropropane	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/10/07	
1,3-Dichloropropane	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
2,2-Dichloropropane	EPA 8260B	7E10025	0.34	2.0	ND	1	05/10/07	05/10/07	
1,1-Dichloropropene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
cis-1,3-Dichloropropene	EPA 8260B	7E10025	0.22	2.0	ND	1	05/10/07	05/10/07	
trans-1,3-Dichloropropene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
Ethylbenzene	EPA 8260B	7E10025	0.25	2.0	ND	1	05/10/07	05/10/07	
Hexachlorobutadiene	EPA 8260B	7E10025	0.38	5.0	ND	1	05/10/07	05/10/07	
Isopropylbenzene	EPA 8260B	7E10025	0.25	2.0	ND	1	05/10/07	05/10/07	
p-Isopropyltoluene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
Methylene chloride	EPA 8260B	7E10025	0.95	5.0	1.9	1	05/10/07	05/10/07	J
Naphthalene	EPA 8260B	7E10025	0.41	5.0	ND	1	05/10/07	05/10/07	

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Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-02 (W_9_0507 - Water) - cont.</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/10/07	
Styrene	EPA 8260B	7E10025	0.16	2.0	ND	1	05/10/07	05/10/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/10/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E10025	0.24	2.0	ND	1	05/10/07	05/10/07	
Tetrachloroethene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
Toluene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E10025	0.30	5.0	ND	1	05/10/07	05/10/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E10025	0.48	5.0	ND	1	05/10/07	05/10/07	
1,1,1-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
1,1,2-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
Trichloroethene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/10/07	
Trichlorofluoromethane	EPA 8260B	7E10025	0.34	5.0	ND	1	05/10/07	05/10/07	
1,2,3-Trichloropropane	EPA 8260B	7E10025	0.40	10	ND	1	05/10/07	05/10/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E10025	0.23	2.0	ND	1	05/10/07	05/10/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/10/07	
Vinyl chloride	EPA 8260B	7E10025	0.30	5.0	ND	1	05/10/07	05/10/07	
o-Xylene	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
m,p-Xylenes	EPA 8260B	7E10025	0.60	2.0	ND	1	05/10/07	05/10/07	
Xylenes, Total	EPA 8260B	7E10025	0.90	4.0	ND	1	05/10/07	05/10/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E10025	0.25	5.0	ND	1	05/10/07	05/10/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E10025	0.33	5.0	ND	1	05/10/07	05/10/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/10/07	
<b>tert-Butanol (TBA)</b>	<b>EPA 8260B</b>	<b>7E10025</b>	<b>4.9</b>	<b>50</b>	<b>17</b>	<b>1</b>	<b>05/10/07</b>	<b>05/10/07</b>	<b>ID, J</b>
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									97 %
<i>Surrogate: Toluene-d8 (80-120%)</i>									104 %
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									89 %

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-03 (W_12_0507 - Water)</b>									<b>Sampled: 05/09/07</b>
Reporting Units: ug/l									
Benzene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
Bromobenzene	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/10/07	
Bromoform	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/10/07	
Bromochloromethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
Bromodichloromethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
Bromoform	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/10/07	
n-Butylbenzene	EPA 8260B	7E10025	0.37	5.0	ND	1	05/10/07	05/10/07	
sec-Butylbenzene	EPA 8260B	7E10025	0.25	5.0	0.61	1	05/10/07	05/10/07	J
tert-Butylbenzene	EPA 8260B	7E10025	0.22	5.0	ND	1	05/10/07	05/10/07	
Carbon tetrachloride	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
Chlorobenzene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
Chloroethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
Chloroform	EPA 8260B	7E10025	0.33	2.0	ND	1	05/10/07	05/10/07	
Chloromethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
2-Chlorotoluene	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
4-Chlorotoluene	EPA 8260B	7E10025	0.29	5.0	ND	1	05/10/07	05/10/07	
Dibromochloromethane	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E10025	0.97	5.0	ND	1	05/10/07	05/10/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E10025	0.40	2.0	ND	1	05/10/07	05/10/07	
Dibromomethane	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
1,2-Dichlorobenzene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
1,3-Dichlorobenzene	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/10/07	
1,4-Dichlorobenzene	EPA 8260B	7E10025	0.37	2.0	ND	1	05/10/07	05/10/07	
Dichlorodifluoromethane	EPA 8260B	7E10025	0.79	5.0	ND	1	05/10/07	05/10/07	
1,1-Dichloroethane	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/10/07	
1,2-Dichloroethane	EPA 8260B	7E10025	0.28	2.0	0.37	1	05/10/07	05/10/07	J
1,1-Dichloroethene	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/10/07	
cis-1,2-Dichloroethene	EPA 8260B	7E10025	0.32	2.0	4.3	1	05/10/07	05/10/07	
trans-1,2-Dichloroethene	EPA 8260B	7E10025	0.27	2.0	0.31	1	05/10/07	05/10/07	J
1,2-Dichloropropane	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/10/07	
1,3-Dichloropropane	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
2,2-Dichloropropane	EPA 8260B	7E10025	0.34	2.0	ND	1	05/10/07	05/10/07	
1,1-Dichloropropene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
cis-1,3-Dichloropropene	EPA 8260B	7E10025	0.22	2.0	ND	1	05/10/07	05/10/07	
trans-1,3-Dichloropropene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
Ethylbenzene	EPA 8260B	7E10025	0.25	2.0	ND	1	05/10/07	05/10/07	
Hexachlorobutadiene	EPA 8260B	7E10025	0.38	5.0	ND	1	05/10/07	05/10/07	
Isopropylbenzene	EPA 8260B	7E10025	0.25	2.0	ND	1	05/10/07	05/10/07	
p-Isopropyltoluene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
Methylene chloride	EPA 8260B	7E10025	0.95	5.0	1.7	1	05/10/07	05/10/07	J
Naphthalene	EPA 8260B	7E10025	0.41	5.0	ND	1	05/10/07	05/10/07	

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Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-03 (W_12_0507 - Water) - cont.</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/10/07	
Styrene	EPA 8260B	7E10025	0.16	2.0	ND	1	05/10/07	05/10/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/10/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E10025	0.24	2.0	ND	1	05/10/07	05/10/07	
Tetrachloroethene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
Toluene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E10025	0.30	5.0	ND	1	05/10/07	05/10/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E10025	0.48	5.0	ND	1	05/10/07	05/10/07	
1,1,1-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
1,1,2-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
Trichloroethene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/10/07	
Trichlorofluoromethane	EPA 8260B	7E10025	0.34	5.0	ND	1	05/10/07	05/10/07	
1,2,3-Trichloropropane	EPA 8260B	7E10025	0.40	10	ND	1	05/10/07	05/10/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E10025	0.23	2.0	ND	1	05/10/07	05/10/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/10/07	
<b>Vinyl chloride</b>	EPA 8260B	7E10025	0.30	5.0	<b>1.1</b>	1	05/10/07	05/10/07	J
<b>o-Xylene</b>	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
<b>m,p-Xylenes</b>	EPA 8260B	7E10025	0.60	2.0	ND	1	05/10/07	05/10/07	
<b>Xylenes, Total</b>	EPA 8260B	7E10025	0.90	4.0	ND	1	05/10/07	05/10/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E10025	0.25	5.0	ND	1	05/10/07	05/10/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E10025	0.33	5.0	ND	1	05/10/07	05/10/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/10/07	
<b>tert-Butanol (TBA)</b>	EPA 8260B	7E10025	4.9	50	<b>40</b>	1	05/10/07	05/10/07	J
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									96 %
<i>Surrogate: Toluene-d8 (80-120%)</i>									105 %
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									97 %

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

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Attention: Jennifer Wiley

Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-04 (MW_105_0507 - Water)</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
Bromobenzene	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/10/07	
Bromochloromethane	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/10/07	
Bromodichloromethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
Bromoform	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
Bromomethane	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/10/07	
n-Butylbenzene	EPA 8260B	7E10025	0.37	5.0	ND	1	05/10/07	05/10/07	
sec-Butylbenzene	EPA 8260B	7E10025	0.25	5.0	ND	1	05/10/07	05/10/07	
tert-Butylbenzene	EPA 8260B	7E10025	0.22	5.0	ND	1	05/10/07	05/10/07	
Carbon tetrachloride	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
Chlorobenzene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
Chloroethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
Chloroform	EPA 8260B	7E10025	0.33	2.0	ND	1	05/10/07	05/10/07	
Chloromethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
2-Chlorotoluene	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
4-Chlorotoluene	EPA 8260B	7E10025	0.29	5.0	ND	1	05/10/07	05/10/07	
Dibromochloromethane	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E10025	0.97	5.0	ND	1	05/10/07	05/10/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E10025	0.40	2.0	ND	1	05/10/07	05/10/07	
Dibromomethane	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
1,2-Dichlorobenzene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
1,3-Dichlorobenzene	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/10/07	
1,4-Dichlorobenzene	EPA 8260B	7E10025	0.37	2.0	ND	1	05/10/07	05/10/07	
Dichlorodifluoromethane	EPA 8260B	7E10025	0.79	5.0	ND	1	05/10/07	05/10/07	
1,1-Dichloroethane	EPA 8260B	7E10025	0.27	2.0	2.6	1	05/10/07	05/10/07	
1,2-Dichloroethane	EPA 8260B	7E10025	0.28	2.0	0.31	1	05/10/07	05/10/07	J
1,1-Dichloroethene	EPA 8260B	7E10025	0.42	5.0	5.9	1	05/10/07	05/10/07	
cis-1,2-Dichloroethene	EPA 8260B	7E10025	0.32	2.0	7.5	1	05/10/07	05/10/07	
trans-1,2-Dichloroethene	EPA 8260B	7E10025	0.27	2.0	2.7	1	05/10/07	05/10/07	
1,2-Dichloropropane	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/10/07	
1,3-Dichloropropane	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
2,2-Dichloropropane	EPA 8260B	7E10025	0.34	2.0	ND	1	05/10/07	05/10/07	
1,1-Dichloropropene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
cis-1,3-Dichloropropene	EPA 8260B	7E10025	0.22	2.0	ND	1	05/10/07	05/10/07	
trans-1,3-Dichloropropene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
Ethylbenzene	EPA 8260B	7E10025	0.25	2.0	ND	1	05/10/07	05/10/07	
Hexachlorobutadiene	EPA 8260B	7E10025	0.38	5.0	ND	1	05/10/07	05/10/07	
Isopropylbenzene	EPA 8260B	7E10025	0.25	2.0	ND	1	05/10/07	05/10/07	
p-Isopropyltoluene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
Methylene chloride	EPA 8260B	7E10025	0.95	5.0	1.7	1	05/10/07	05/10/07	J
Naphthalene	EPA 8260B	7E10025	0.41	5.0	ND	1	05/10/07	05/10/07	

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Project ID: Former Ceneo Refinery - 2006  
 54205.001  
 Report Number: IQE0953

Sampled: 05/09/07  
 Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-04 (MW_105_0507 - Water) - cont.</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/10/07	
Styrene	EPA 8260B	7E10025	0.16	2.0	ND	1	05/10/07	05/10/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/10/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E10025	0.24	2.0	ND	1	05/10/07	05/10/07	
<b>Tetrachloroethene</b>	EPA 8260B	7E10025	0.32	2.0	<b>12</b>	1	05/10/07	05/10/07	
Toluene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E10025	0.30	5.0	ND	1	05/10/07	05/10/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E10025	0.48	5.0	ND	1	05/10/07	05/10/07	
1,1,1-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
1,1,2-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
<b>Trichloroethene</b>	EPA 8260B	7E10025	0.26	2.0	<b>36</b>	1	05/10/07	05/10/07	
Trichlorofluoromethane	EPA 8260B	7E10025	0.34	5.0	ND	1	05/10/07	05/10/07	
1,2,3-Trichloropropane	EPA 8260B	7E10025	0.40	10	ND	1	05/10/07	05/10/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E10025	0.23	2.0	ND	1	05/10/07	05/10/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/10/07	
<b>Vinyl chloride</b>	EPA 8260B	7E10025	0.30	5.0	<b>0.59</b>	1	05/10/07	05/10/07	J
o-Xylene	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
m,p-Xylenes	EPA 8260B	7E10025	0.60	2.0	ND	1	05/10/07	05/10/07	
Xylenes, Total	EPA 8260B	7E10025	0.90	4.0	ND	1	05/10/07	05/10/07	
<b>Di-isopropyl Ether (DIPE)</b>	EPA 8260B	7E10025	0.25	5.0	<b>0.77</b>	1	05/10/07	05/10/07	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E10025	0.33	5.0	ND	1	05/10/07	05/10/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/10/07	
tert-Butanol (TBA)	EPA 8260B	7E10025	4.9	50	ND	1	05/10/07	05/10/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									96 %
<i>Surrogate: Toluene-d8 (80-120%)</i>									104 %
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									90 %

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-05 (MW_105_0507D - Water)</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
Bromobenzene	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/10/07	
Bromoform	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/10/07	
Bromochloromethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
Bromodichloromethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
Bromoform	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/10/07	
Bromomethane	EPA 8260B	7E10025	0.37	5.0	ND	1	05/10/07	05/10/07	
n-Butylbenzene	EPA 8260B	7E10025	0.25	5.0	ND	1	05/10/07	05/10/07	
sec-Butylbenzene	EPA 8260B	7E10025	0.22	5.0	ND	1	05/10/07	05/10/07	
Carbon tetrachloride	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
Chlorobenzene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
Chloroethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
Chloroform	EPA 8260B	7E10025	0.33	2.0	ND	1	05/10/07	05/10/07	
Chloromethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
2-Chlorotoluene	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
4-Chlorotoluene	EPA 8260B	7E10025	0.29	5.0	ND	1	05/10/07	05/10/07	
Dibromochloromethane	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E10025	0.97	5.0	ND	1	05/10/07	05/10/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E10025	0.40	2.0	ND	1	05/10/07	05/10/07	
Dibromomethane	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
1,2-Dichlorobenzene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
1,3-Dichlorobenzene	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/10/07	
1,4-Dichlorobenzene	EPA 8260B	7E10025	0.37	2.0	ND	1	05/10/07	05/10/07	
Dichlorodifluoromethane	EPA 8260B	7E10025	0.79	5.0	ND	1	05/10/07	05/10/07	
1,1-Dichloroethane	EPA 8260B	7E10025	0.27	2.0	2.6	1	05/10/07	05/10/07	
1,2-Dichloroethane	EPA 8260B	7E10025	0.28	2.0	0.34	1	05/10/07	05/10/07	J
1,1-Dichloroethene	EPA 8260B	7E10025	0.42	5.0	6.0	1	05/10/07	05/10/07	
cis-1,2-Dichloroethene	EPA 8260B	7E10025	0.32	2.0	7.5	1	05/10/07	05/10/07	
trans-1,2-Dichloroethene	EPA 8260B	7E10025	0.27	2.0	2.8	1	05/10/07	05/10/07	
1,2-Dichloropropane	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/10/07	
1,3-Dichloropropane	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
2,2-Dichloropropane	EPA 8260B	7E10025	0.34	2.0	ND	1	05/10/07	05/10/07	
1,1-Dichloropropene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
cis-1,3-Dichloropropene	EPA 8260B	7E10025	0.22	2.0	ND	1	05/10/07	05/10/07	
trans-1,3-Dichloropropene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
Ethylbenzene	EPA 8260B	7E10025	0.25	2.0	ND	1	05/10/07	05/10/07	
Hexachlorobutadiene	EPA 8260B	7E10025	0.38	5.0	ND	1	05/10/07	05/10/07	
Isopropylbenzene	EPA 8260B	7E10025	0.25	2.0	ND	1	05/10/07	05/10/07	
p-Isopropyltoluene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
Methylene chloride	EPA 8260B	7E10025	0.95	5.0	1.8	1	05/10/07	05/10/07	J
Naphthalene	EPA 8260B	7E10025	0.41	5.0	ND	1	05/10/07	05/10/07	

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Project ID: Former Cenex Refinery - 2006  
 54205.001  
 Report Number: IQE0953

Sampled: 05/09/07  
 Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-05 (MW_105_0507D - Water) - cont.</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/10/07	
Styrene	EPA 8260B	7E10025	0.16	2.0	ND	1	05/10/07	05/10/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/10/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E10025	0.24	2.0	ND	1	05/10/07	05/10/07	
<b>Tetrachloroethene</b>	EPA 8260B	7E10025	0.32	2.0	<b>12</b>	1	05/10/07	05/10/07	
Toluene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E10025	0.30	5.0	ND	1	05/10/07	05/10/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E10025	0.48	5.0	ND	1	05/10/07	05/10/07	
1,1,1-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
1,1,2-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
<b>Trichloroethene</b>	EPA 8260B	7E10025	0.26	2.0	<b>36</b>	1	05/10/07	05/10/07	
Trichlorofluoromethane	EPA 8260B	7E10025	0.34	5.0	ND	1	05/10/07	05/10/07	
1,2,3-Trichloropropane	EPA 8260B	7E10025	0.40	10	ND	1	05/10/07	05/10/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E10025	0.23	2.0	ND	1	05/10/07	05/10/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/10/07	
<b>Vinyl chloride</b>	EPA 8260B	7E10025	0.30	5.0	<b>0.57</b>	1	05/10/07	05/10/07	J
o-Xylene	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
m,p-Xylenes	EPA 8260B	7E10025	0.60	2.0	ND	1	05/10/07	05/10/07	
Xylenes, Total	EPA 8260B	7E10025	0.90	4.0	ND	1	05/10/07	05/10/07	
<b>Di-isopropyl Ether (DIPE)</b>	EPA 8260B	7E10025	0.25	5.0	<b>0.78</b>	1	05/10/07	05/10/07	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E10025	0.33	5.0	ND	1	05/10/07	05/10/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/10/07	
tert-Butanol (TBA)	EPA 8260B	7E10025	4.9	50	ND	1	05/10/07	05/10/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									99 %
<i>Surrogate: Toluene-d8 (80-120%)</i>									102 %
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									88 %

TestAmerica - Irvine, CA  
 Sushmitha Reddy  
 Project Manager

Arcadis - Blasland, Bouck & Lee  
3240 El Camino Real, Suite 200  
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Attention: Jennifer Wiley

Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-06 (MW_103_0507 - Water)</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	7E10025	0.28	2.0	<b>0.51</b>	1	05/10/07	05/10/07	J
Bromobenzene	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/10/07	
Bromochloromethane	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/10/07	
Bromodichloromethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
Bromoform	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
Bromomethane	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/10/07	
n-Butylbenzene	EPA 8260B	7E10025	0.37	5.0	ND	1	05/10/07	05/10/07	
sec-Butylbenzene	EPA 8260B	7E10025	0.25	5.0	<b>1.9</b>	1	05/10/07	05/10/07	J
tert-Butylbenzene	EPA 8260B	7E10025	0.22	5.0	<b>0.39</b>	1	05/10/07	05/10/07	J
Carbon tetrachloride	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
Chlorobenzene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
Chloroethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
Chloroform	EPA 8260B	7E10025	0.33	2.0	ND	1	05/10/07	05/10/07	
Chloromethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/10/07	
2-Chlorotoluene	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
4-Chlorotoluene	EPA 8260B	7E10025	0.29	5.0	ND	1	05/10/07	05/10/07	
Dibromochloromethane	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E10025	0.97	5.0	ND	1	05/10/07	05/10/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E10025	0.40	2.0	ND	1	05/10/07	05/10/07	
Dibromomethane	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
1,2-Dichlorobenzene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
1,3-Dichlorobenzene	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/10/07	
1,4-Dichlorobenzene	EPA 8260B	7E10025	0.37	2.0	ND	1	05/10/07	05/10/07	
Dichlorodifluoromethane	EPA 8260B	7E10025	0.79	5.0	ND	1	05/10/07	05/10/07	
1,1-Dichloroethane	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/10/07	
<b>1,2-Dichloroethane</b>	<b>EPA 8260B</b>	<b>7E10025</b>	<b>0.28</b>	<b>2.0</b>	<b>0.32</b>	<b>1</b>	<b>05/10/07</b>	<b>05/10/07</b>	J
1,1-Dichloroethene	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/10/07	
<b>cis-1,2-Dichloroethene</b>	<b>EPA 8260B</b>	<b>7E10025</b>	<b>0.32</b>	<b>2.0</b>	<b>0.93</b>	<b>1</b>	<b>05/10/07</b>	<b>05/10/07</b>	J
trans-1,2-Dichloroethene	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/10/07	
1,2-Dichloropropane	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/10/07	
1,3-Dichloropropane	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
2,2-Dichloropropane	EPA 8260B	7E10025	0.34	2.0	ND	1	05/10/07	05/10/07	
1,1-Dichloropropene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
cis-1,3-Dichloropropene	EPA 8260B	7E10025	0.22	2.0	ND	1	05/10/07	05/10/07	
trans-1,3-Dichloropropene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
Ethylbenzene	EPA 8260B	7E10025	0.25	2.0	ND	1	05/10/07	05/10/07	
Hexachlorobutadiene	EPA 8260B	7E10025	0.38	5.0	ND	1	05/10/07	05/10/07	
<b>Isopropylbenzene</b>	<b>EPA 8260B</b>	<b>7E10025</b>	<b>0.25</b>	<b>2.0</b>	<b>2.6</b>	<b>1</b>	<b>05/10/07</b>	<b>05/10/07</b>	
p-Isopropyltoluene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/10/07	
Methylene chloride	EPA 8260B	7E10025	0.95	5.0	<b>1.5</b>	1	05/10/07	05/10/07	J
Naphthalene	EPA 8260B	7E10025	0.41	5.0	ND	1	05/10/07	05/10/07	

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Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-06 (MW_103_0507 - Water) - cont.</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E10025	0.27	2.0	2.4	1	05/10/07	05/10/07	
Styrene	EPA 8260B	7E10025	0.16	2.0	ND	1	05/10/07	05/10/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/10/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E10025	0.24	2.0	ND	1	05/10/07	05/10/07	
Tetrachloroethene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/10/07	
Toluene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/10/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E10025	0.30	5.0	ND	1	05/10/07	05/10/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E10025	0.48	5.0	ND	1	05/10/07	05/10/07	
1,1,1-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
1,1,2-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
Trichloroethene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/10/07	
Trichlorofluoromethane	EPA 8260B	7E10025	0.34	5.0	ND	1	05/10/07	05/10/07	
1,2,3-Trichloropropane	EPA 8260B	7E10025	0.40	10	ND	1	05/10/07	05/10/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E10025	0.23	2.0	ND	1	05/10/07	05/10/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/10/07	
Vinyl chloride	EPA 8260B	7E10025	0.30	5.0	ND	1	05/10/07	05/10/07	
o-Xylene	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/10/07	
m,p-Xylenes	EPA 8260B	7E10025	0.60	2.0	ND	1	05/10/07	05/10/07	
Xylenes, Total	EPA 8260B	7E10025	0.90	4.0	ND	1	05/10/07	05/10/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E10025	0.25	5.0	ND	1	05/10/07	05/10/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/10/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E10025	0.33	5.0	ND	1	05/10/07	05/10/07	
<b>Methyl-tert-butyl Ether (MTBE)</b>	EPA 8260B	7E10025	0.32	5.0	<b>12</b>	1	05/10/07	05/10/07	
<b>tert-Butanol (TBA)</b>	EPA 8260B	7E10025	4.9	50	<b>85</b>	1	05/10/07	05/10/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									97 %
<i>Surrogate: Toluene-d8 (80-120%)</i>									103 %
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									94 %

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Project ID: Former Ceneo Refinery - 2006  
 54205.001  
 Report Number: IQE0953

Sampled: 05/09/07  
 Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-07 (MW_205_0507 - Water)</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	7E10025	0.28	2.0	7.4	1	05/10/07	05/11/07	
Bromobenzene	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/11/07	
Bromochloromethane	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/11/07	
Bromodichloromethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/11/07	
Bromoform	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/11/07	
Bromomethane	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/11/07	
n-Butylbenzene	EPA 8260B	7E10025	0.37	5.0	ND	1	05/10/07	05/11/07	
sec-Butylbenzene	EPA 8260B	7E10025	0.25	5.0	ND	1	05/10/07	05/11/07	
tert-Butylbenzene	EPA 8260B	7E10025	0.22	5.0	ND	1	05/10/07	05/11/07	
Carbon tetrachloride	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/11/07	
Chlorobenzene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/11/07	
Chloroethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/11/07	
Chloroform	EPA 8260B	7E10025	0.33	2.0	ND	1	05/10/07	05/11/07	
Chloromethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/11/07	
2-Chlorotoluene	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/11/07	
4-Chlorotoluene	EPA 8260B	7E10025	0.29	5.0	ND	1	05/10/07	05/11/07	
Dibromochloromethane	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/11/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E10025	0.97	5.0	ND	1	05/10/07	05/11/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E10025	0.40	2.0	ND	1	05/10/07	05/11/07	
Dibromomethane	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/11/07	
1,2-Dichlorobenzene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/11/07	
1,3-Dichlorobenzene	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/11/07	
1,4-Dichlorobenzene	EPA 8260B	7E10025	0.37	2.0	ND	1	05/10/07	05/11/07	
Dichlorodifluoromethane	EPA 8260B	7E10025	0.79	5.0	ND	1	05/10/07	05/11/07	
1,1-Dichloroethane	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/11/07	
1,2-Dichloroethane	EPA 8260B	7E10025	0.28	2.0	0.54	1	05/10/07	05/11/07	J
1,1-Dichloroethene	EPA 8260B	7E10025	0.42	5.0	0.95	1	05/10/07	05/11/07	J
cis-1,2-Dichloroethene	EPA 8260B	7E10025	0.32	2.0	40	1	05/10/07	05/11/07	
trans-1,2-Dichloroethene	EPA 8260B	7E10025	0.27	2.0	0.85	1	05/10/07	05/11/07	J
1,2-Dichloropropane	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/11/07	
1,3-Dichloropropane	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/11/07	
2,2-Dichloropropane	EPA 8260B	7E10025	0.34	2.0	ND	1	05/10/07	05/11/07	
1,1-Dichloropropene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/11/07	
cis-1,3-Dichloropropene	EPA 8260B	7E10025	0.22	2.0	ND	1	05/10/07	05/11/07	
trans-1,3-Dichloropropene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/11/07	
Ethylbenzene	EPA 8260B	7E10025	0.25	2.0	ND	1	05/10/07	05/11/07	
Hexachlorobutadiene	EPA 8260B	7E10025	0.38	5.0	ND	1	05/10/07	05/11/07	
Isopropylbenzene	EPA 8260B	7E10025	0.25	2.0	ND	1	05/10/07	05/11/07	
p-Isopropyltoluene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/11/07	
Methylene chloride	EPA 8260B	7E10025	0.95	5.0	1.6	1	05/10/07	05/11/07	J
Naphthalene	EPA 8260B	7E10025	0.41	5.0	ND	1	05/10/07	05/11/07	

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Project ID: Former Ceneo Refinery - 2006  
 54205.001  
 Report Number: IQE0953

Sampled: 05/09/07  
 Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-07 (MW_205_0507 - Water) - cont.</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/11/07	
Styrene	EPA 8260B	7E10025	0.16	2.0	ND	1	05/10/07	05/11/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/11/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E10025	0.24	2.0	ND	1	05/10/07	05/11/07	
Tetrachloroethene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/11/07	
Toluene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/11/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E10025	0.30	5.0	ND	1	05/10/07	05/11/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E10025	0.48	5.0	ND	1	05/10/07	05/11/07	
1,1,1-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/11/07	
1,1,2-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/11/07	
Trichloroethene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/11/07	
Trichlorofluoromethane	EPA 8260B	7E10025	0.34	5.0	ND	1	05/10/07	05/11/07	
1,2,3-Trichloropropane	EPA 8260B	7E10025	0.40	10	ND	1	05/10/07	05/11/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E10025	0.23	2.0	ND	1	05/10/07	05/11/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/11/07	
Vinyl chloride	EPA 8260B	7E10025	0.30	5.0	<b>0.41</b>	1	05/10/07	05/11/07	J
o-Xylene	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/11/07	
m,p-Xylenes	EPA 8260B	7E10025	0.60	2.0	ND	1	05/10/07	05/11/07	
Xylenes, Total	EPA 8260B	7E10025	0.90	4.0	ND	1	05/10/07	05/11/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E10025	0.25	5.0	ND	1	05/10/07	05/11/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/11/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E10025	0.33	5.0	ND	1	05/10/07	05/11/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/11/07	
tert-Butanol (TBA)	EPA 8260B	7E10025	4.9	50	ND	1	05/10/07	05/11/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					99 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					103 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					90 %				

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Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-08 (MW_201_0507 - Water)</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
Benzene	EPA 8260B	7E10025	0.28	2.0	47	1	05/10/07	05/11/07	
Bromobenzene	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/11/07	
Bromochloromethane	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/11/07	
Bromodichloromethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/11/07	
Bromoform	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/11/07	
Bromomethane	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/11/07	
n-Butylbenzene	EPA 8260B	7E10025	0.37	5.0	ND	1	05/10/07	05/11/07	
sec-Butylbenzene	EPA 8260B	7E10025	0.25	5.0	0.69	1	05/10/07	05/11/07	J
tert-Butylbenzene	EPA 8260B	7E10025	0.22	5.0	ND	1	05/10/07	05/11/07	
Carbon tetrachloride	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/11/07	
Chlorobenzene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/11/07	
Chloroethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/11/07	
Chloroform	EPA 8260B	7E10025	0.33	2.0	ND	1	05/10/07	05/11/07	
Chloromethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/11/07	
2-Chlorotoluene	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/11/07	
4-Chlorotoluene	EPA 8260B	7E10025	0.29	5.0	ND	1	05/10/07	05/11/07	
Dibromochloromethane	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/11/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E10025	0.97	5.0	ND	1	05/10/07	05/11/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E10025	0.40	2.0	ND	1	05/10/07	05/11/07	
Dibromomethane	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/11/07	
1,2-Dichlorobenzene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/11/07	
1,3-Dichlorobenzene	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/11/07	
1,4-Dichlorobenzene	EPA 8260B	7E10025	0.37	2.0	ND	1	05/10/07	05/11/07	
Dichlorodifluoromethane	EPA 8260B	7E10025	0.79	5.0	ND	1	05/10/07	05/11/07	
1,1-Dichloroethane	EPA 8260B	7E10025	0.27	2.0	0.40	1	05/10/07	05/11/07	J
1,2-Dichloroethane	EPA 8260B	7E10025	0.28	2.0	0.83	1	05/10/07	05/11/07	J
1,1-Dichloroethene	EPA 8260B	7E10025	0.42	5.0	3.1	1	05/10/07	05/11/07	J
cis-1,2-Dichloroethene	EPA 8260B	7E10025	0.32	2.0	38	1	05/10/07	05/11/07	
trans-1,2-Dichloroethene	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/11/07	
1,2-Dichloropropane	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/11/07	
1,3-Dichloropropane	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/11/07	
2,2-Dichloropropane	EPA 8260B	7E10025	0.34	2.0	ND	1	05/10/07	05/11/07	
1,1-Dichloropropene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/11/07	
cis-1,3-Dichloropropene	EPA 8260B	7E10025	0.22	2.0	ND	1	05/10/07	05/11/07	
trans-1,3-Dichloropropene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/11/07	
Ethylbenzene	EPA 8260B	7E10025	0.25	2.0	4.0	1	05/10/07	05/11/07	
Hexachlorobutadiene	EPA 8260B	7E10025	0.38	5.0	ND	1	05/10/07	05/11/07	
Isopropylbenzene	EPA 8260B	7E10025	0.25	2.0	2.7	1	05/10/07	05/11/07	
p-Isopropyltoluene	EPA 8260B	7E10025	0.28	2.0	0.34	1	05/10/07	05/11/07	J
Methylene chloride	EPA 8260B	7E10025	0.95	5.0	1.7	1	05/10/07	05/11/07	J
Naphthalene	EPA 8260B	7E10025	0.41	5.0	ND	1	05/10/07	05/11/07	

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 Attention: Jennifer Wiley

Project ID: Former Ceneo Refinery - 2006  
 54205.001  
 Report Number: IQE0953

Sampled: 05/09/07  
 Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-08 (MW_201_0507 - Water) - cont.</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
<b>n-Propylbenzene</b>	EPA 8260B	7E10025	0.27	2.0	<b>1.3</b>	1	05/10/07	05/11/07	J
Styrene	EPA 8260B	7E10025	0.16	2.0	ND	1	05/10/07	05/11/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/11/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E10025	0.24	2.0	ND	1	05/10/07	05/11/07	
Tetrachloroethene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/11/07	
Toluene	EPA 8260B	7E10025	0.36	2.0	<b>0.75</b>	1	05/10/07	05/11/07	J
1,2,3-Trichlorobenzene	EPA 8260B	7E10025	0.30	5.0	ND	1	05/10/07	05/11/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E10025	0.48	5.0	ND	1	05/10/07	05/11/07	
1,1,1-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/11/07	
<b>1,1,2-Trichloroethane</b>	EPA 8260B	7E10025	0.30	2.0	<b>0.67</b>	1	05/10/07	05/11/07	J
Trichloroethene	EPA 8260B	7E10025	0.26	2.0	<b>8.5</b>	1	05/10/07	05/11/07	
Trichlorofluoromethane	EPA 8260B	7E10025	0.34	5.0	ND	1	05/10/07	05/11/07	
1,2,3-Trichloropropane	EPA 8260B	7E10025	0.40	10	ND	1	05/10/07	05/11/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E10025	0.23	2.0	ND	1	05/10/07	05/11/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/11/07	
Vinyl chloride	EPA 8260B	7E10025	0.30	5.0	<b>0.67</b>	1	05/10/07	05/11/07	J
o-Xylene	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/11/07	
<b>m,p-Xylenes</b>	EPA 8260B	7E10025	0.60	2.0	<b>2.6</b>	1	05/10/07	05/11/07	
<b>Xylenes, Total</b>	EPA 8260B	7E10025	0.90	4.0	<b>2.8</b>	1	05/10/07	05/11/07	J
Di-isopropyl Ether (DIPE)	EPA 8260B	7E10025	0.25	5.0	ND	1	05/10/07	05/11/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/11/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E10025	0.33	5.0	ND	1	05/10/07	05/11/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/11/07	
tert-Butanol (TBA)	EPA 8260B	7E10025	4.9	50	ND	1	05/10/07	05/11/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							98 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							102 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							90 %		

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54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-09 (W_11_0507 - Water)</b>									<b>Sampled: 05/09/07</b>
Reporting Units: ug/l									
Benzene	EPA 8260B	7E10025	0.28	2.0	45	1	05/10/07	05/11/07	
Bromobenzene	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/11/07	
Bromochloromethane	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/11/07	
Bromodichloromethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/11/07	
Bromoform	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/11/07	
Bromomethane	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/11/07	
n-Butylbenzene	EPA 8260B	7E10025	0.37	5.0	ND	1	05/10/07	05/11/07	
sec-Butylbenzene	EPA 8260B	7E10025	0.25	5.0	0.52	1	05/10/07	05/11/07	J
tert-Butylbenzene	EPA 8260B	7E10025	0.22	5.0	ND	1	05/10/07	05/11/07	
Carbon tetrachloride	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/11/07	
Chlorobenzene	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/11/07	
Chloroethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/11/07	
Chloroform	EPA 8260B	7E10025	0.33	2.0	ND	1	05/10/07	05/11/07	
Chloromethane	EPA 8260B	7E10025	0.40	5.0	ND	1	05/10/07	05/11/07	
2-Chlorotoluene	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/11/07	
4-Chlorotoluene	EPA 8260B	7E10025	0.29	5.0	ND	1	05/10/07	05/11/07	
Dibromochloromethane	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/11/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E10025	0.97	5.0	ND	1	05/10/07	05/11/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E10025	0.40	2.0	ND	1	05/10/07	05/11/07	
Dibromomethane	EPA 8260B	7E10025	0.36	2.0	ND	1	05/10/07	05/11/07	
1,2-Dichlorobenzene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/11/07	
1,3-Dichlorobenzene	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/11/07	
1,4-Dichlorobenzene	EPA 8260B	7E10025	0.37	2.0	ND	1	05/10/07	05/11/07	
Dichlorodifluoromethane	EPA 8260B	7E10025	0.79	5.0	ND	1	05/10/07	05/11/07	
1,1-Dichloroethane	EPA 8260B	7E10025	0.27	2.0	ND	1	05/10/07	05/11/07	
1,2-Dichloroethane	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/11/07	
1,1-Dichloroethene	EPA 8260B	7E10025	0.42	5.0	ND	1	05/10/07	05/11/07	
cis-1,2-Dichloroethene	EPA 8260B	7E10025	0.32	2.0	18	1	05/10/07	05/11/07	
trans-1,2-Dichloroethene	EPA 8260B	7E10025	0.27	2.0	0.41	1	05/10/07	05/11/07	J
1,2-Dichloropropane	EPA 8260B	7E10025	0.35	2.0	ND	1	05/10/07	05/11/07	
1,3-Dichloropropane	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/11/07	
2,2-Dichloropropane	EPA 8260B	7E10025	0.34	2.0	ND	1	05/10/07	05/11/07	
1,1-Dichloropropene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/11/07	
cis-1,3-Dichloropropene	EPA 8260B	7E10025	0.22	2.0	ND	1	05/10/07	05/11/07	
trans-1,3-Dichloropropene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/11/07	
Ethylbenzene	EPA 8260B	7E10025	0.25	2.0	19	1	05/10/07	05/11/07	
Hexachlorobutadiene	EPA 8260B	7E10025	0.38	5.0	ND	1	05/10/07	05/11/07	
Isopropylbenzene	EPA 8260B	7E10025	0.25	2.0	4.0	1	05/10/07	05/11/07	
p-Isopropyltoluene	EPA 8260B	7E10025	0.28	2.0	ND	1	05/10/07	05/11/07	
Methylene chloride	EPA 8260B	7E10025	0.95	5.0	2.6	1	05/10/07	05/11/07	J
Naphthalene	EPA 8260B	7E10025	0.41	5.0	0.68	1	05/10/07	05/11/07	J

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Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-09 (W_11_0507 - Water) - cont.</b>									<b>Sampled: 05/09/07</b>
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E10025	0.27	2.0	<b>3.5</b>	1	05/10/07	05/11/07	
Styrene	EPA 8260B	7E10025	0.16	2.0	ND	1	05/10/07	05/11/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E10025	0.27	5.0	ND	1	05/10/07	05/11/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E10025	0.24	2.0	ND	1	05/10/07	05/11/07	
Tetrachloroethene	EPA 8260B	7E10025	0.32	2.0	ND	1	05/10/07	05/11/07	
Toluene	EPA 8260B	7E10025	0.36	2.0	<b>1.6</b>	1	05/10/07	05/11/07	J
1,2,3-Trichlorobenzene	EPA 8260B	7E10025	0.30	5.0	ND	1	05/10/07	05/11/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E10025	0.48	5.0	ND	1	05/10/07	05/11/07	
1,1,1-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/11/07	
1,1,2-Trichloroethane	EPA 8260B	7E10025	0.30	2.0	ND	1	05/10/07	05/11/07	
Trichloroethene	EPA 8260B	7E10025	0.26	2.0	ND	1	05/10/07	05/11/07	
Trichlorofluoromethane	EPA 8260B	7E10025	0.34	5.0	ND	1	05/10/07	05/11/07	
1,2,3-Trichloropropane	EPA 8260B	7E10025	0.40	10	ND	1	05/10/07	05/11/07	
<b>1,2,4 Trimethylbenzene</b>	EPA 8260B	7E10025	0.23	2.0	<b>9.0</b>	1	05/10/07	05/11/07	
<b>1,3,5 Trimethylbenzene</b>	EPA 8260B	7E10025	0.26	2.0	<b>4.4</b>	1	05/10/07	05/11/07	
Vinyl chloride	EPA 8260B	7E10025	0.30	5.0	<b>0.96</b>	1	05/10/07	05/11/07	J
<b>o-Xylene</b>	EPA 8260B	7E10025	0.30	2.0	<b>3.1</b>	1	05/10/07	05/11/07	
<b>m,p-Xylenes</b>	EPA 8260B	7E10025	0.60	2.0	<b>47</b>	1	05/10/07	05/11/07	
<b>Xylenes, Total</b>	EPA 8260B	7E10025	0.90	4.0	<b>51</b>	1	05/10/07	05/11/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E10025	0.25	5.0	ND	1	05/10/07	05/11/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E10025	0.28	5.0	ND	1	05/10/07	05/11/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E10025	0.33	5.0	ND	1	05/10/07	05/11/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E10025	0.32	5.0	ND	1	05/10/07	05/11/07	
tert-Butanol (TBA)	EPA 8260B	7E10025	4.9	50	ND	1	05/10/07	05/11/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									98 %
<i>Surrogate: Toluene-d8 (80-120%)</i>									104 %
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									94 %

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Project ID: Former Cencos Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## DISSOLVED GASES BY HEADSPACE EQUILIBRIUM (RSK-175 MOD.)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-07 (MW_205_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
Reporting Units: mg/l									
Methane	RSK-175 MOD.	7E17052	0.021	0.050	0.25	1	05/17/07	05/17/07	

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Sampled: 05/09/07  
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## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE0953-02 (W_9_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E09136	0.00020	0.0020	ND	1	05/09/07	05/09/07	
<b>Sample ID: IQE0953-03 (W_12_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E09136	0.00020	0.0020	ND	1	05/09/07	05/09/07	
<b>Sample ID: IQE0953-04 (MW_105_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E09136	0.00020	0.0020	ND	1	05/09/07	05/09/07	
<b>Sample ID: IQE0953-05 (MW_105_0507D - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E09136	0.00020	0.0020	ND	1	05/09/07	05/09/07	
<b>Sample ID: IQE0953-06 (MW_103_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E09136	0.00020	0.0020	ND	1	05/09/07	05/09/07	
<b>Sample ID: IQE0953-07 (MW_205_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> mg/l									
Alkalinity as CaCO <sub>3</sub>	SM2320B	7E18070	2.0	2.0	540	1	05/18/07	05/18/07	
Ferrous Iron	SM 3500-Fe D	7E10093	0.10	0.10	0.20	1	05/10/07	05/10/07	HFT
Chromium VI	EPA 7199	7E09136	0.00020	0.0020	ND	1	05/09/07	05/09/07	
Nitrate-N	EPA 300.0	7E09049	0.060	0.11	ND	1	05/09/07	05/09/07	
Sulfate	EPA 300.0	7E09049	10	25	430	50	05/09/07	05/09/07	
<b>Sample ID: IQE0953-08 (MW_201_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E09136	0.00020	0.0020	ND	1	05/09/07	05/09/07	
<b>Sample ID: IQE0953-09 (W_11_0507 - Water)</b>								<b>Sampled: 05/09/07</b>	
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E09136	0.00020	0.0020	ND	1	05/09/07	05/09/07	

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Received: 05/09/07

## SHORT HOLD TIME DETAIL REPORT

	<b>Hold Time (in days)</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>	<b>Date/Time Extracted</b>	<b>Date/Time Analyzed</b>
<b>Sample ID: W_9_0507 (IQE0953-02) - Water</b>					
EPA 7199	1	05/09/2007 08:05	05/09/2007 16:55	05/09/2007 18:40	05/09/2007 19:19
<b>Sample ID: W_12_0507 (IQE0953-03) - Water</b>					
EPA 7199	1	05/09/2007 09:10	05/09/2007 16:55	05/09/2007 18:40	05/09/2007 19:30
<b>Sample ID: MW_105_0507 (IQE0953-04) - Water</b>					
EPA 7199	1	05/09/2007 10:20	05/09/2007 16:55	05/09/2007 18:40	05/09/2007 19:42
<b>Sample ID: MW_105_0507D (IQE0953-05) - Water</b>					
EPA 7199	1	05/09/2007 10:20	05/09/2007 16:55	05/09/2007 18:40	05/09/2007 19:53
<b>Sample ID: MW_103_0507 (IQE0953-06) - Water</b>					
EPA 7199	1	05/09/2007 11:30	05/09/2007 16:55	05/09/2007 18:40	05/09/2007 20:04
<b>Sample ID: MW_205_0507 (IQE0953-07) - Water</b>					
EPA 300.0	2	05/09/2007 11:30	05/09/2007 16:55	05/09/2007 17:30	05/09/2007 21:59
EPA 7199	1	05/09/2007 11:30	05/09/2007 16:55	05/09/2007 18:40	05/09/2007 20:15
SM 3500-Fe D	1	05/09/2007 11:30	05/09/2007 16:55	05/10/2007 10:30	05/10/2007 10:50
<b>Sample ID: MW_201_0507 (IQE0953-08) - Water</b>					
EPA 7199	1	05/09/2007 13:30	05/09/2007 16:55	05/09/2007 18:40	05/09/2007 20:26
<b>Sample ID: W_11_0507 (IQE0953-09) - Water</b>					
EPA 7199	1	05/09/2007 14:35	05/09/2007 16:55	05/09/2007 18:40	05/09/2007 20:37

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Report Number: IQE0953

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Received: 05/09/07

## METHOD BLANK/QC DATA

### VOLATILE FUEL HYDROCARBONS (EPA 5030/8015M)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E16044 Extracted: 05/16/07</b>											
<b>Blank Analyzed: 05/16/2007 (7E16044-BLK1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)											
	ND	50	30	ug/l		10.0		90	65-140		
	9.00			ug/l							
<b>LCS Analyzed: 05/16/2007 (7E16044-BS1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)											
	796	50	30	ug/l		800		100	80-120		
	13.0			ug/l		10.0		130	65-140		
<b>Matrix Spike Analyzed: 05/16/2007 (7E16044-MS1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)											
	248	50	30	ug/l		220	ND	113	65-140		
	11.8			ug/l		10.0		118	65-140		
<b>Matrix Spike Dup Analyzed: 05/16/2007 (7E16044-MSD1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)											
	255	50	30	ug/l		220	ND	116	65-140	3	20
	11.7			ug/l		10.0		117	65-140		

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E10025 Extracted: 05/10/07</b>											
<b>Blank Analyzed: 05/10/2007 (7E10025-BLK1)</b>											
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.40	ug/l							
Bromomethane	ND	5.0	0.42	ug/l							
n-Butylbenzene	ND	5.0	0.37	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
tert-Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.40	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.40	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.97	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.40	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.42	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.32	ug/l							
2,2-Dichloropropane	ND	2.0	0.34	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.32	ug/l							

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E10025 Extracted: 05/10/07</b>											
<b>Blank Analyzed: 05/10/2007 (7E10025-BLK1)</b>											
<i>J</i>											
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	2.76	5.0	0.95	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.27	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.30	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.40	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.30	ug/l							
o-Xylene	ND	2.0	0.30	ug/l							
m,p-Xylenes	ND	2.0	0.60	ug/l							
Xylenes, Total	ND	4.0	0.90	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
tert-Butanol (TBA)	ND	50	4.9	ug/l							
Surrogate Dibromofluoromethane	24.4			ug/l	25.0		98	80-120			
Surrogate Toluene-d8	25.5			ug/l	25.0		102	80-120			
Surrogate 4-Bromofluorobenzene	21.2			ug/l	25.0		85	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E10025 Extracted: 05/10/07</b>											
<b>LCS Analyzed: 05/10/2007 (7E10025-BS1)</b>											
Benzene	24.9	2.0	0.28	ug/l	25.0		100	70-120			
Bromobenzene	25.2	5.0	0.27	ug/l	25.0		101	75-120			
Bromoform	22.8	5.0	0.40	ug/l	25.0		91	55-130			
Bromomethane	27.3	5.0	0.42	ug/l	25.0		109	65-140			
n-Butylbenzene	26.2	5.0	0.37	ug/l	25.0		105	70-130			
sec-Butylbenzene	25.2	5.0	0.25	ug/l	25.0		101	70-125			
tert-Butylbenzene	25.6	5.0	0.22	ug/l	25.0		102	70-125			
Carbon tetrachloride	23.6	5.0	0.28	ug/l	25.0		94	65-140			
Chlorobenzene	25.1	2.0	0.36	ug/l	25.0		100	75-120			
Chloroethane	27.2	5.0	0.40	ug/l	25.0		109	60-140			
Chloroform	24.5	2.0	0.33	ug/l	25.0		98	70-130			
Chloromethane	26.5	5.0	0.40	ug/l	25.0		106	50-140			
2-Chlorotoluene	24.7	5.0	0.28	ug/l	25.0		99	70-125			
4-Chlorotoluene	25.1	5.0	0.29	ug/l	25.0		100	75-125			
Dibromochloromethane	25.4	2.0	0.28	ug/l	25.0		102	70-140			
1,2-Dibromo-3-chloropropane	20.9	5.0	0.97	ug/l	25.0		84	50-135			
1,2-Dibromoethane (EDB)	26.9	2.0	0.40	ug/l	25.0		108	75-125			
Dibromomethane	26.7	2.0	0.36	ug/l	25.0		107	70-125			
1,2-Dichlorobenzene	24.9	2.0	0.32	ug/l	25.0		100	75-120			
1,3-Dichlorobenzene	26.0	2.0	0.35	ug/l	25.0		104	75-120			
1,4-Dichlorobenzene	23.7	2.0	0.37	ug/l	25.0		95	75-120			
Dichlorodifluoromethane	24.9	5.0	0.79	ug/l	25.0		100	35-155			
1,1-Dichloroethane	24.8	2.0	0.27	ug/l	25.0		99	70-125			
1,2-Dichloroethane	23.6	2.0	0.28	ug/l	25.0		94	60-140			
1,1-Dichloroethene	25.2	5.0	0.42	ug/l	25.0		101	70-125			
cis-1,2-Dichloroethene	25.8	2.0	0.32	ug/l	25.0		103	70-125			
trans-1,2-Dichloroethene	25.7	2.0	0.27	ug/l	25.0		103	70-125			
1,2-Dichloropropane	25.2	2.0	0.35	ug/l	25.0		101	70-125			
1,3-Dichloropropane	25.9	2.0	0.32	ug/l	25.0		104	70-120			
2,2-Dichloropropane	23.3	2.0	0.34	ug/l	25.0		93	65-140			
1,1-Dichloropropene	23.2	2.0	0.28	ug/l	25.0		93	75-130			
cis-1,3-Dichloropropene	24.0	2.0	0.22	ug/l	25.0		96	75-125			
trans-1,3-Dichloropropene	24.4	2.0	0.32	ug/l	25.0		98	70-125			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E10025 Extracted: 05/10/07</b>											
<b>LCS Analyzed: 05/10/2007 (7E10025-BS1)</b>											
Ethylbenzene	26.1	2.0	0.25	ug/l	25.0		104	75-125			
Hexachlorobutadiene	22.8	5.0	0.38	ug/l	25.0		91	65-135			
Isopropylbenzene	28.4	2.0	0.25	ug/l	25.0		114	75-130			
p-Isopropyltoluene	25.4	2.0	0.28	ug/l	25.0		102	75-125			
Meihylene chloride	27.1	5.0	0.95	ug/l	25.0		108	55-130			
Naphthalene	25.0	5.0	0.41	ug/l	25.0		100	55-135			
n-Propylbenzene	26.3	2.0	0.27	ug/l	25.0		105	75-130			
Styrene	23.9	2.0	0.16	ug/l	25.0		96	75-130			
1,1,1,2-Tetrachloroethane	25.0	5.0	0.27	ug/l	25.0		100	70-130			
1,1,2,2-Tetrachloroethane	26.9	2.0	0.24	ug/l	25.0		108	55-130			
Tetrachloroethene	24.4	2.0	0.32	ug/l	25.0		98	70-125			
Toluene	26.0	2.0	0.36	ug/l	25.0		104	70-120			
1,2,3-Trichlorobenzene	24.8	5.0	0.30	ug/l	25.0		99	65-125			
1,2,4-Trichlorobenzene	22.9	5.0	0.48	ug/l	25.0		92	70-135			
1,1,1-Trichloroethane	24.1	2.0	0.30	ug/l	25.0		96	65-135			
1,1,2-Trichloroethane	26.6	2.0	0.30	ug/l	25.0		106	70-125			
Trichloroethene	23.5	2.0	0.26	ug/l	25.0		94	70-125			
Trichlorofluoromethane	26.0	5.0	0.34	ug/l	25.0		104	65-145			
1,2,3-Trichloropropane	26.2	10	0.40	ug/l	25.0		105	60-130			
1,2,4-Trimethylbenzene	24.9	2.0	0.23	ug/l	25.0		100	75-125			
1,3,5-Trimethylbenzene	25.5	2.0	0.26	ug/l	25.0		102	75-125			
Vinyl chloride	25.4	5.0	0.30	ug/l	25.0		102	55-135			
o-Xylene	26.2	2.0	0.30	ug/l	25.0		105	75-125			
m,p-Xylenes	52.5	2.0	0.60	ug/l	50.0		105	75-125			
Xylenes, Total	78.7	4.0	0.90	ug/l	75.0		105	70-125			
Di-isopropyl Ether (DIPE)	28.0	5.0	0.25	ug/l	25.0		112	60-135			
Ethyl tert-Butyl Ether (ETBE)	25.7	5.0	0.28	ug/l	25.0		103	65-135			
tert-Amyl Methyl Ether (TAME)	26.7	5.0	0.33	ug/l	25.0		107	60-135			
Methyl-tert-butyl Ether (MTBE)	26.4	5.0	0.32	ug/l	25.0		106	60-135			
tert-Butanol (TBA)	134	50	4.9	ug/l	125		107	70-135			
Surrogate Dibromofluoromethane	25.1			ug/l	25.0		100	80-120			
Surrogate Toluene-d8	26.6			ug/l	25.0		106	80-120			
Surrogate 4-Bromofluorobenzene	24.6			ug/l	25.0		98	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E10025 Extracted: 05/10/07</b>											
<b>Matrix Spike Analyzed: 05/10/2007 (7E10025-MS1)</b>											
<b>Source: IQE0953-02</b>											
Benzene	24.0	2.0	0.28	ug/l	25.0	ND	96	65-125			
Bromobenzene	23.9	5.0	0.27	ug/l	25.0	ND	96	70-125			
Bromoform	27.5	5.0	0.32	ug/l	25.0	ND	110	65-135			
Bromochloromethane	25.0	2.0	0.30	ug/l	25.0	ND	100	70-135			
Bromodichloromethane	22.7	5.0	0.40	ug/l	25.0	ND	91	55-135			
Bromomethane	23.3	5.0	0.42	ug/l	25.0	ND	93	55-145			
n-Butylbenzene	25.4	5.0	0.37	ug/l	25.0	ND	102	65-135			
sec-Butylbenzene	23.9	5.0	0.25	ug/l	25.0	ND	96	70-125			
tert-Butylbenzene	24.1	5.0	0.22	ug/l	25.0	ND	96	65-130			
Carbon tetrachloride	22.2	5.0	0.28	ug/l	25.0	ND	89	65-140			
Chlorobenzene	24.3	2.0	0.36	ug/l	25.0	ND	97	75-125			
Chloroethane	25.6	5.0	0.40	ug/l	25.0	ND	102	55-140			
Chloroform	24.1	2.0	0.33	ug/l	25.0	ND	96	65-135			
Chloromethane	24.6	5.0	0.40	ug/l	25.0	ND	98	45-145			
2-Chlorotoluene	22.9	5.0	0.28	ug/l	25.0	ND	92	65-135			
4-Chlorotoluene	23.7	5.0	0.29	ug/l	25.0	ND	95	70-135			
Dibromochloromethane	25.1	2.0	0.28	ug/l	25.0	ND	100	65-140			
1,2-Dibromo-3-chloropropane	21.9	5.0	0.97	ug/l	25.0	ND	88	45-145			
1,2-Dibromoethane (EDB)	26.6	2.0	0.40	ug/l	25.0	ND	106	70-130			
Dibromomethane	26.8	2.0	0.36	ug/l	25.0	ND	107	65-135			
1,2-Dichlorobenzene	24.8	2.0	0.32	ug/l	25.0	ND	99	75-125			
1,3-Dichlorobenzene	24.9	2.0	0.35	ug/l	25.0	ND	100	75-125			
1,4-Dichlorobenzene	22.5	2.0	0.37	ug/l	25.0	ND	90	75-125			
Dichlorodifluoromethane	22.0	5.0	0.79	ug/l	25.0	ND	88	25-155			
1,1-Dichloroethane	24.1	2.0	0.27	ug/l	25.0	ND	96	65-130			
1,2-Dichloroethane	23.8	2.0	0.28	ug/l	25.0	ND	95	60-140			
1,1-Dichloroethene	24.6	5.0	0.42	ug/l	25.0	ND	98	60-130			
cis-1,2-Dichloroethene	27.3	2.0	0.32	ug/l	25.0	2.0	101	65-130			
trans-1,2-Dichloroethene	24.5	2.0	0.27	ug/l	25.0	ND	98	65-130			
1,2-Dichloropropane	24.7	2.0	0.35	ug/l	25.0	ND	99	65-130			
1,3-Dichloropropane	25.5	2.0	0.32	ug/l	25.0	ND	102	65-135			
2,2-Dichloropropane	21.8	2.0	0.34	ug/l	25.0	ND	87	60-145			
1,1-Dichloropropene	22.1	2.0	0.28	ug/l	25.0	ND	88	70-135			
cis-1,3-Dichloropropene	23.8	2.0	0.22	ug/l	25.0	ND	95	70-130			
trans-1,3-Dichloropropene	24.2	2.0	0.32	ug/l	25.0	ND	97	65-135			

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Attention: Jennifer Wiley

Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E10025 Extracted: 05/10/07</b>											
<b>Matrix Spike Analyzed: 05/10/2007 (7E10025-MS1)</b>											
<b>Source: IQE0953-02</b>											
Ethylbenzene	25.0	2.0	0.25	ug/l	25.0	ND	100	65-130			
Hexachlorobutadiene	23.2	5.0	0.38	ug/l	25.0	ND	93	60-135			
Isopropylbenzene	26.4	2.0	0.25	ug/l	25.0	ND	106	70-135			
p-Isopropyltoluene	24.1	2.0	0.28	ug/l	25.0	ND	96	65-130			
Methylene chloride	25.4	5.0	0.95	ug/l	25.0	1.9	94	50-135			
Naphthalene	27.8	5.0	0.41	ug/l	25.0	ND	111	50-140			
n-Propylbenzene	24.5	2.0	0.27	ug/l	25.0	ND	98	70-135			
Styrene	23.1	2.0	0.16	ug/l	25.0	ND	92	50-145			
1,1,1,2-Tetrachloroethane	24.3	5.0	0.27	ug/l	25.0	ND	97	65-140			
1,1,2,2-Tetrachloroethane	26.4	2.0	0.24	ug/l	25.0	ND	106	55-135			
Tetrachloroethene	22.9	2.0	0.32	ug/l	25.0	ND	92	65-130			
Toluene	25.4	2.0	0.36	ug/l	25.0	ND	102	70-125			
1,2,3-Trichlorobenzene	27.8	5.0	0.30	ug/l	25.0	ND	111	60-135			
1,2,4-Trichlorobenzene	25.2	5.0	0.48	ug/l	25.0	ND	101	65-135			
1,1,1-Trichloroethane	23.0	2.0	0.30	ug/l	25.0	ND	92	65-140			
1,1,2-Trichloroethane	26.6	2.0	0.30	ug/l	25.0	ND	106	65-130			
Trichloroethene	22.8	2.0	0.26	ug/l	25.0	ND	91	65-125			
Trichlorofluoromethane	24.5	5.0	0.34	ug/l	25.0	ND	98	60-145			
1,2,3-Trichloropropane	25.5	10	0.40	ug/l	25.0	ND	102	55-135			
1,2,4-Trimethylbenzene	23.5	2.0	0.23	ug/l	25.0	ND	94	55-135			
1,3,5-Trimethylbenzene	23.5	2.0	0.26	ug/l	25.0	ND	94	70-130			
Vinyl chloride	21.3	5.0	0.30	ug/l	25.0	ND	85	45-140			
o-Xylene	25.3	2.0	0.30	ug/l	25.0	ND	101	65-125			
m,p-Xylenes	50.6	2.0	0.60	ug/l	50.0	ND	101	65-130			
Xylenes, Total	75.9	4.0	0.90	ug/l	75.0	ND	101	60-130			
Di-isopropyl Ether (DIPE)	27.8	5.0	0.25	ug/l	25.0	ND	111	60-140			
Ethyl tert-Butyl Ether (ETBE)	25.6	5.0	0.28	ug/l	25.0	ND	102	60-135			
tert-Amyl Methyl Ether (TAME)	26.8	5.0	0.33	ug/l	25.0	ND	107	60-140			
Methyl-tert-butyl Ether (MTBE)	26.7	5.0	0.32	ug/l	25.0	ND	107	55-145			
tert-Butanol (TBA)	149	50	4.9	ug/l	125	17	106	65-140			
Surrogate Dibromofluoromethane	25.7			ug/l	25.0		103	80-120			
Surrogate Toluene-d8	26.6			ug/l	25.0		106	80-120			
Surrogate 4-Bromofluorobenzene	25.2			ug/l	25.0		101	80-120			

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

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3240 El Camino Real, Suite 200  
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Attention: Jennifer Wiley

Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE0953

Sampled: 05/09/07  
Received: 05/09/07

## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E10025 Extracted: 05/10/07</b>											
<b>Matrix Spike Dup Analyzed: 05/10/2007 (7E10025-MSD1)</b>											
<b>Source: IQE0953-02</b>											
Benzene	24.9	2.0	0.28	ug/l	25.0	ND	100	65-125	4	20	
Bromobenzene	25.2	5.0	0.27	ug/l	25.0	ND	101	70-125	5	20	
Bromoform	28.4	5.0	0.32	ug/l	25.0	ND	114	65-135	3	25	
Bromochloromethane	25.7	2.0	0.30	ug/l	25.0	ND	103	70-135	3	20	
Bromodichloromethane	22.3	5.0	0.40	ug/l	25.0	ND	89	55-135	2	25	
Bromomethane	25.5	5.0	0.42	ug/l	25.0	ND	102	55-145	9	25	
Carbon tetrachloride	25.8	5.0	0.37	ug/l	25.0	ND	103	65-135	2	20	
Chlorobenzene	25.0	5.0	0.25	ug/l	25.0	ND	100	70-125	4	20	
Chloroethane	25.0	5.0	0.40	ug/l	25.0	ND	105	55-140	2	25	
Chloroform	25.6	5.0	0.22	ug/l	25.0	ND	102	65-130	6	20	
Chloromethane	23.3	5.0	0.28	ug/l	25.0	ND	93	65-140	5	25	
Chlorotoluene	25.0	2.0	0.36	ug/l	25.0	ND	100	75-125	3	20	
Dibromochloromethane	25.0	5.0	0.40	ug/l	25.0	ND	100	45-145	2	25	
1,1-Dichloroethene	24.2	5.0	0.28	ug/l	25.0	ND	97	65-135	6	20	
1,1-Dichloroethane	24.7	5.0	0.29	ug/l	25.0	ND	99	70-135	4	20	
1,2-Dibromo-3-chloropropane	25.6	2.0	0.28	ug/l	25.0	ND	102	65-140	2	25	
1,2-Dibromoethane (EDB)	21.0	5.0	0.97	ug/l	25.0	ND	84	45-145	4	30	
Dibromomethane	26.8	2.0	0.40	ug/l	25.0	ND	107	70-130	1	25	
1,2-Dichlorobenzene	26.8	2.0	0.36	ug/l	25.0	ND	107	65-135	0	25	
1,2-Dichlorobenzene	25.4	2.0	0.32	ug/l	25.0	ND	102	75-125	2	20	
1,3-Dichlorobenzene	25.8	2.0	0.35	ug/l	25.0	ND	103	75-125	4	20	
1,4-Dichlorobenzene	23.3	2.0	0.37	ug/l	25.0	ND	93	75-125	3	20	
Dichlorodifluoromethane	22.0	5.0	0.79	ug/l	25.0	ND	88	25-155	0	30	
1,1-Dichloroethane	25.3	2.0	0.27	ug/l	25.0	ND	101	65-130	5	20	
1,2-Dichloroethane	24.0	2.0	0.28	ug/l	25.0	ND	96	60-140	1	20	
1,1-Dichloroethene	24.0	2.0	0.42	ug/l	25.0	ND	103	60-130	5	20	
cis-1,2-Dichloroethene	25.8	2.0	0.32	ug/l	25.0	2.0	106	65-130	5	20	
trans-1,2-Dichloroethene	28.6	2.0	0.27	ug/l	25.0	ND	104	65-130	6	20	
1,2-Dichloropropane	26.0	2.0	0.27	ug/l	25.0	ND	102	65-130	3	20	
1,3-Dichloropropane	22.6	2.0	0.35	ug/l	25.0	ND	104	65-135	2	25	
2,2-Dichloropropane	22.9	2.0	0.28	ug/l	25.0	ND	90	60-145	4	25	
1,1-Dichloropropene	24.2	2.0	0.22	ug/l	25.0	ND	92	70-135	4	20	
cis-1,3-Dichloropropene	24.5	2.0	0.32	ug/l	25.0	ND	97	70-130	2	20	
trans-1,3-Dichloropropene	24.5	2.0	0.32	ug/l	25.0	ND	98	65-135	1	25	

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54205.001  
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Sampled: 05/09/07  
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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E10025 Extracted: 05/10/07</b>											
<b>Matrix Spike Dup Analyzed: 05/10/2007 (7E10025-MSD1)</b>											
<b>Source: IQE0953-02</b>											
Ethylbenzene	25.8	2.0	0.25	ug/l	25.0	ND	103	65-130	3	20	
Hexachlorobutadiene	23.7	5.0	0.38	ug/l	25.0	ND	95	60-135	2	20	
Isopropylbenzene	28.0	2.0	0.25	ug/l	25.0	ND	112	70-135	6	20	
p-Isopropyltoluene	25.1	2.0	0.28	ug/l	25.0	ND	100	65-130	4	20	
Methylene chloride	25.4	5.0	0.95	ug/l	25.0	1.9	94	50-135	0	20	
Naphthalene	25.8	5.0	0.41	ug/l	25.0	ND	103	50-140	7	30	
n-Propylbenzene	25.8	2.0	0.27	ug/l	25.0	ND	103	70-135	5	20	
Styrene	23.0	2.0	0.16	ug/l	25.0	ND	92	50-145	0	30	
1,1,1,2-Tetrachloroethane	25.1	5.0	0.27	ug/l	25.0	ND	100	65-140	3	20	
1,1,2,2-Tetrachloroethane	26.2	2.0	0.24	ug/l	25.0	ND	105	55-135	1	30	
Tetrachloroethene	24.0	2.0	0.32	ug/l	25.0	ND	96	65-130	5	20	
Toluene	25.8	2.0	0.36	ug/l	25.0	ND	103	70-125	2	20	
1,2,3-Trichlorobenzene	26.5	5.0	0.30	ug/l	25.0	ND	106	60-135	5	20	
1,2,4-Trichlorobenzene	24.0	5.0	0.48	ug/l	25.0	ND	96	65-135	5	20	
1,1,1-Trichloroethane	23.9	2.0	0.30	ug/l	25.0	ND	96	65-140	4	20	
1,1,2-Trichloroethane	26.5	2.0	0.30	ug/l	25.0	ND	106	65-130	0	25	
Trichloroethene	23.4	2.0	0.26	ug/l	25.0	ND	94	65-125	3	20	
Trichlorofluoromethane	25.3	5.0	0.34	ug/l	25.0	ND	101	60-145	3	25	
1,2,3-Trichloropropane	25.4	10	0.40	ug/l	25.0	ND	102	55-135	0	30	
1,2,4-Trimethylbenzene	24.5	2.0	0.23	ug/l	25.0	ND	98	55-135	4	25	
1,3,5-Trimethylbenzene	24.8	2.0	0.26	ug/l	25.0	ND	99	70-130	5	20	
Vinyl chloride	21.8	5.0	0.30	ug/l	25.0	ND	87	45-140	2	30	
o-Xylene	26.0	2.0	0.30	ug/l	25.0	ND	104	65-125	3	20	
m,p-Xylenes	51.8	2.0	0.60	ug/l	50.0	ND	104	65-130	2	25	
Xylenes, Total	77.8	4.0	0.90	ug/l	75.0	ND	104	60-130	2	20	
Di-isopropyl Ether (DIPE)	29.0	5.0	0.25	ug/l	25.0	ND	116	60-140	4	25	
Ethyl tert-Butyl Ether (ETBE)	26.7	5.0	0.28	ug/l	25.0	ND	107	60-135	4	25	
tert-Amyl Methyl Ether (TAME)	27.6	5.0	0.33	ug/l	25.0	ND	110	60-140	3	30	
Methyl-tert-butyl Ether (MTBE)	27.3	5.0	0.32	ug/l	25.0	ND	109	55-145	2	25	
tert-Butanol (TBA)	150	50	4.9	ug/l	125	17	106	65-140	1	25	
Surrogate Dibromofluoromethane	26.2			ug/l	25.0		105	80-120			
Surrogate Toluene-d8	26.3			ug/l	25.0		105	80-120			
Surrogate 4-Bromofluorobenzene	24.8			ug/l	25.0		99	80-120			

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## METHOD BLANK/QC DATA

### DISSOLVED GASES BY HEADSPACE EQUILIBRIUM (RSK-175 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E17052 Extracted: 05/17/07</b>											
<b>Blank Analyzed: 05/17/2007 (7E17052-BLK1)</b>											
Methane	0.0210	0.050	0.021	mg/l							J
<b>LCS Analyzed: 05/17/2007 (7E17052-BS1)</b>											
Methane	1.60	0.050	0.021	mg/l	1.36		118	80-120			
<b>Matrix Spike Analyzed: 05/17/2007 (7E17052-MS1)</b>											
Methane	1.46	0.050	0.021	mg/l	1.36	ND	107	80-120			
<b>Matrix Spike Dup Analyzed: 05/17/2007 (7E17052-MSD1)</b>											
Methane	1.54	0.050	0.021	mg/l	1.36	ND	113	80-120	5	25	

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
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Batch: 7E09049 Extracted: 05/09/07

**Blank Analyzed: 05/09/2007 (7E09049-BLK1)**

Nitrate-N	ND	0.15	0.080	mg/l							J
Sulfate	0.307	0.50	0.20	mg/l							

**LCS Analyzed: 05/09/2007 (7E09049-BS1)**

Nitrate-N	1.15	0.15	0.080	mg/l	1.13		102	90-110			
Sulfate	9.13	0.50	0.20	mg/l	10.0		91	90-110			

**Matrix Spike Analyzed: 05/09/2007 (7E09049-MS1)**

Nitrate-N	1.26	0.15	0.080	mg/l	1.13	ND	112	80-120			
Sulfate	11.2	0.50	0.20	mg/l	10.0	1.4	98	80-120			

**Matrix Spike Dup Analyzed: 05/09/2007 (7E09049-MSD1)**

Nitrate-N	1.31	0.15	0.080	mg/l	1.13	ND	116	80-120	4	20	
Sulfate	11.5	0.50	0.20	mg/l	10.0	1.4	101	80-120	3	20	

Batch: 7E09136 Extracted: 05/09/07

**Blank Analyzed: 05/09/2007 (7E09136-BLK1)**

Chromium VI	ND	0.0020	0.00020	mg/l							
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**LCS Analyzed: 05/09/2007 (7E09136-BS1)**

Chromium VI	0.0504	0.0020	0.00020	mg/l	0.0500		101	90-110			
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**Matrix Spike Analyzed: 05/09/2007 (7E09136-MS1)**

Chromium VI	0.0474	0.0020	0.00020	mg/l	0.0500	ND	95	80-115			
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**Matrix Spike Dup Analyzed: 05/09/2007 (7E09136-MSD1)**

Chromium VI	0.0490	0.0020	0.00020	mg/l	0.0500	ND	98	80-115	3	15	
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TestAmerica - Irvine, CA  
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Project Manager

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E10093 Extracted: 05/10/07</b>											
<b>Blank Analyzed: 05/10/2007 (7E10093-BLK1)</b>											
Ferrous Iron	ND	0.10	0.10	mg/l							
<b>Duplicate Analyzed: 05/10/2007 (7E10093-DUP1)</b>											
Ferrous Iron	0.200	0.10	0.10	mg/l		0.20			0	20	HFT
<b>Batch: 7E18070 Extracted: 05/18/07</b>											
<b>Duplicate Analyzed: 05/18/2007 (7E18070-DUP1)</b>											
Alkalinity as CaCO <sub>3</sub>	532	2.0	2.0	mg/l		540			1	20	
<b>Reference Analyzed: 05/18/2007 (7E18070-SRM1)</b>											
Alkalinity as CaCO <sub>3</sub>	172	2.0	2.0	mg/l	181		95	90-110			

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## DATA QUALIFIERS AND DEFINITIONS

- HFT** The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
- ID** Due to the low levels of analyte found in the sample, the analyte was qualitatively identified based on the compound's retention time and the presence of a single mass ion.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

## ADDITIONAL COMMENTS

**For 8260 analyses:**

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

**For GRO (C4-C12):**

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

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## Certification Summary

### TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 300.0	Water	X	X
EPA 7199	Water	X	X
EPA 8015B	Water	X	X
EPA 8260B	Water	X	X
RSK-175 MOD.	Water	N/A	N/A
SM 3500-Fe D	Water		
SM2320B	Water	X	X

*Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at [www.testamericainc.com](http://www.testamericainc.com)*

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

# TestAmerica

ANALYTICAL TESTING CORPORATION

## CHAIN OF CUSTODY FORM

IQE6953

Page 1 of 1

17461 Denian Ave. #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3291  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Client Name/Address:  ARCADIS BBL 32400 El Camino Real, Ste 200 Irvine, CA 92602		Project/PO Number:  Former GENCO Recovery 80054265		Analysis Required												
Project Manager:  Jennifer Wiley		Phone Number:  (714) 730-9552		VOC	(826)	(8-15B)	Cx (TIC)	(7100)	Lead	(300)	Nitrate	(300)	Ferric	(5413500)	Methane	(CRSX-175)
Sampler:  Mather Zein		Fax Number:  (714) 730-9345														
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives									Special Instructions	
TB-050907	W	VQA	3	5.9.07	0700	ACI	✓	✓								See Attached
W-9-0507		VQA+ Palg	6		0835	Various	✓	✓	✓							
W-12-0507			6		0910		✓	✓	✓							
MW-105-0507			6		1020		✓	✓	✓							
MW-105-0507			6		1020		✓	✓	✓							
MW-103-0507			6		1130		✓	✓	✓							
MW-205-0507			9		1235		✓	✓	✓	✓	✓	✓	✓	✓	✓	
MW-201-0507			6		1330		✓	✓	✓							
W-11-0507			6		1435		✓	✓	✓							
<i>No More Samples</i>														<i>EN</i>		
<i>(M2) 05.09.07</i>														<i>1900</i>		
Relinquished By:	Date/Time:		Received By:		Date/Time:		Turnaround Time: (Check)									
<i>Mather Z.</i>	<i>05.09.07 1555</i>		<i>J. L. TAI</i>		<i>5/9/07 1555</i>		same day _____ 72 hours _____									
Relinquished By:	Date/Time:		Received By:		Date/Time:		24 hours _____ 5 days _____									
<i>J. L. TAI</i>	<i>5/9/07 1655</i>		<i>V. Borch</i>		<i>5/9/07 1655</i>		48 hours _____ normal <input checked="" type="checkbox"/>									
Relinquished By:	Date/Time:		Received in Lab By:		Date/Time:		Sample Integrity: (Check)									
<i>J. L. TAI</i>	<i>5/9/07 1655</i>		<i>V. Borch</i>		<i>5/9/07 1655</i>		intact <input checked="" type="checkbox"/> on ice <input checked="" type="checkbox"/>									

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

#338

5.4/4.9

## LABORATORY REPORT

Prepared For: Arcadis - Blasland, Bouck & Lee  
3240 El Camino Real, Suite 200  
Irvine, CA 92602

Attention: Jennifer Wiley

Project: Former Cenco Refinery - 2006  
54205.001

Sampled: 05/10/07  
Received: 05/10/07  
Issued: 05/21/07 16:41

NELAP #01108CA California ELAP#1197 CSDLAC #10256

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.*

*This entire report was reviewed and approved for release.*

## SAMPLE CROSS REFERENCE

LABORATORY ID	CLIENT ID	MATRIX
IQE1102-01	TB051007	Water
IQE1102-02	MW_106A_0507	Water
IQE1102-03	MW_107A_0507	Water
IQE1102-04	MW_203_0507	Water
IQE1102-05	W_4_0507	Water
IQE1102-06	W_3A_0507	Water
IQE1102-07	W_1_0507	Water
IQE1102-08	EW_1_0507	Water

Reviewed By:



TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

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3240 El Camino Real, Suite 200  
Irvine, CA 92602  
Attention: Jennifer Wiley

Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## VOLATILE FUEL HYDROCARBONS (EPA 5030/8015M)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Date Qualifiers
<b>Sample ID: IQE1102-01 (TB051007 - Water)</b>									
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E18041	30	50	ND	1	05/18/07	05/18/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1102-02 (MW_106A_0507 - Water)</b>									
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E18041	30	50	210	1	05/18/07	05/18/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1102-03 (MW_107A_0507 - Water)</b>									
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E18041	30	50	670	1	05/18/07	05/18/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1102-04 (MW_203_0507 - Water)</b>									
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E18041	30	50	170	1	05/18/07	05/18/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1102-05 (W_4_0507 - Water)</b>									
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E18041	30	50	170	1	05/18/07	05/18/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1102-06 (W_3A_0507 - Water)</b>									
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E18041	3000	5000	14000	100	05/18/07	05/18/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1102-07 (W_1_0507 - Water)</b>									
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E18041	30	50	890	1	05/18/07	05/18/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1102-08 (EW_1_0507 - Water)</b>									
<b>Reporting Units:</b> ug/l									
GRO (C4 - C12)	EPA 8015B	7E21043	150	250	3300	5	05/21/07	05/21/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-01 (TB051007 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	TE11001	0.28	2.0	ND	1	05/11/07	05/11/07	
Bromobenzene	EPA 8260B	TE11001	0.27	5.0	ND	1	05/11/07	05/11/07	
Bromoform	EPA 8260B	TE11001	0.32	5.0	ND	1	05/11/07	05/11/07	
Bromochloromethane	EPA 8260B	TE11001	0.30	2.0	ND	1	05/11/07	05/11/07	
Bromodichloromethane	EPA 8260B	TE11001	0.40	5.0	ND	1	05/11/07	05/11/07	
Bromoform	EPA 8260B	TE11001	0.42	5.0	ND	1	05/11/07	05/11/07	
Bromomethane	EPA 8260B	TE11001	0.37	5.0	ND	1	05/11/07	05/11/07	
n-Butylbenzene	EPA 8260B	TE11001	0.25	5.0	ND	1	05/11/07	05/11/07	
sec-Butylbenzene	EPA 8260B	TE11001	0.22	5.0	ND	1	05/11/07	05/11/07	
Carbon tetrachloride	EPA 8260B	TE11001	0.28	5.0	ND	1	05/11/07	05/11/07	
Chlorobenzene	EPA 8260B	TE11001	0.36	2.0	ND	1	05/11/07	05/11/07	
Chloroethane	EPA 8260B	TE11001	0.40	5.0	ND	1	05/11/07	05/11/07	
Chloroform	EPA 8260B	TE11001	0.33	2.0	ND	1	05/11/07	05/11/07	
Chloromethane	EPA 8260B	TE11001	0.40	5.0	ND	1	05/11/07	05/11/07	
2-Chlorotoluene	EPA 8260B	TE11001	0.28	5.0	ND	1	05/11/07	05/11/07	
4-Chlorotoluene	EPA 8260B	TE11001	0.29	5.0	ND	1	05/11/07	05/11/07	
Dibromochloromethane	EPA 8260B	TE11001	0.28	2.0	ND	1	05/11/07	05/11/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE11001	0.97	5.0	ND	1	05/11/07	05/11/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE11001	0.40	2.0	ND	1	05/11/07	05/11/07	
Dibromomethane	EPA 8260B	TE11001	0.36	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichlorobenzene	EPA 8260B	TE11001	0.32	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichlorobenzene	EPA 8260B	TE11001	0.35	2.0	ND	1	05/11/07	05/11/07	
1,4-Dichlorobenzene	EPA 8260B	TE11001	0.37	2.0	ND	1	05/11/07	05/11/07	
Dichlorodifluoromethane	EPA 8260B	TE11001	0.79	5.0	ND	1	05/11/07	05/11/07	
1,1-Dichloroethane	EPA 8260B	TE11001	0.27	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichloroethane	EPA 8260B	TE11001	0.28	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloroethene	EPA 8260B	TE11001	0.42	5.0	ND	1	05/11/07	05/11/07	
cis-1,2-Dichloroethene	EPA 8260B	TE11001	0.32	2.0	ND	1	05/11/07	05/11/07	
trans-1,2-Dichloroethene	EPA 8260B	TE11001	0.27	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichloropropane	EPA 8260B	TE11001	0.35	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichloropropane	EPA 8260B	TE11001	0.32	2.0	ND	1	05/11/07	05/11/07	
2,2-Dichloropropane	EPA 8260B	TE11001	0.34	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloropropene	EPA 8260B	TE11001	0.28	2.0	ND	1	05/11/07	05/11/07	
cis-1,3-Dichloropropene	EPA 8260B	TE11001	0.22	2.0	ND	1	05/11/07	05/11/07	
trans-1,3-Dichloropropene	EPA 8260B	TE11001	0.32	2.0	ND	1	05/11/07	05/11/07	
Ethylbenzene	EPA 8260B	TE11001	0.25	2.0	ND	1	05/11/07	05/11/07	
Hexachlorobutadiene	EPA 8260B	TE11001	0.38	5.0	ND	1	05/11/07	05/11/07	
Isopropylbenzene	EPA 8260B	TE11001	0.25	2.0	ND	1	05/11/07	05/11/07	
p-Isopropyltoluene	EPA 8260B	TE11001	0.28	2.0	ND	1	05/11/07	05/11/07	
Methylene chloride	EPA 8260B	TE11001	0.95	5.0	ND	1	05/11/07	05/11/07	
Naphthalene	EPA 8260B	TE11001	0.41	5.0	ND	1	05/11/07	05/11/07	

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Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-01 (TB051007 - Water) - cont.</b>									
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E11001	0.27	2.0	ND	1	05/11/07	05/11/07	
Styrene	EPA 8260B	7E11001	0.16	2.0	ND	1	05/11/07	05/11/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E11001	0.27	5.0	ND	1	05/11/07	05/11/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E11001	0.24	2.0	ND	1	05/11/07	05/11/07	
Tetrachloroethene	EPA 8260B	7E11001	0.32	2.0	ND	1	05/11/07	05/11/07	
Toluene	EPA 8260B	7E11001	0.36	2.0	ND	1	05/11/07	05/11/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E11001	0.30	5.0	ND	1	05/11/07	05/11/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E11001	0.48	5.0	ND	1	05/11/07	05/11/07	
1,1,1-Trichloroethane	EPA 8260B	7E11001	0.30	2.0	ND	1	05/11/07	05/11/07	
1,1,2-Trichloroethane	EPA 8260B	7E11001	0.30	2.0	ND	1	05/11/07	05/11/07	
Trichloroethene	EPA 8260B	7E11001	0.26	2.0	ND	1	05/11/07	05/11/07	
Trichlorofluoromethane	EPA 8260B	7E11001	0.34	5.0	ND	1	05/11/07	05/11/07	
1,2,3-Trichloropropane	EPA 8260B	7E11001	0.40	10	ND	1	05/11/07	05/11/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E11001	0.23	2.0	ND	1	05/11/07	05/11/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E11001	0.26	2.0	ND	1	05/11/07	05/11/07	
Vinyl chloride	EPA 8260B	7E11001	0.30	5.0	ND	1	05/11/07	05/11/07	
o-Xylene	EPA 8260B	7E11001	0.30	2.0	ND	1	05/11/07	05/11/07	
m,p-Xylenes	EPA 8260B	7E11001	0.60	2.0	ND	1	05/11/07	05/11/07	
Xylenes, Total	EPA 8260B	7E11001	0.90	4.0	ND	1	05/11/07	05/11/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E11001	0.25	5.0	ND	1	05/11/07	05/11/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E11001	0.28	5.0	ND	1	05/11/07	05/11/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E11001	0.33	5.0	ND	1	05/11/07	05/11/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E11001	0.32	5.0	ND	1	05/11/07	05/11/07	
tert-Butanol (TBA)	EPA 8260B	7E11001	4.9	50	ND	1	05/11/07	05/11/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							90 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							95 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							94 %		

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 Attention: Jennifer Wiley

Project ID: Former Cenex Refinery - 2006  
 54205.001  
 Report Number: IQE1102

Sampled: 05/10/07  
 Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-02 (MW_106A_0507 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	TE11001	0.28	2.0	1.5	1	05/11/07	05/11/07	J
Bromobenzene	EPA 8260B	TE11001	0.27	5.0	ND	1	05/11/07	05/11/07	
Bromoform	EPA 8260B	TE11001	0.32	5.0	ND	1	05/11/07	05/11/07	
Bromochloromethane	EPA 8260B	TE11001	0.30	2.0	ND	1	05/11/07	05/11/07	
Bromodichloromethane	EPA 8260B	TE11001	0.40	5.0	ND	1	05/11/07	05/11/07	
Bromoform	EPA 8260B	TE11001	0.42	5.0	ND	1	05/11/07	05/11/07	
Bromomethane	EPA 8260B	TE11001	0.37	5.0	ND	1	05/11/07	05/11/07	
n-Butylbenzene	EPA 8260B	TE11001	0.25	5.0	1.4	1	05/11/07	05/11/07	J
sec-Butylbenzene	EPA 8260B	TE11001	0.22	5.0	0.73	1	05/11/07	05/11/07	J
Carbon tetrachloride	EPA 8260B	TE11001	0.28	5.0	ND	1	05/11/07	05/11/07	
Chlorobenzene	EPA 8260B	TE11001	0.36	2.0	ND	1	05/11/07	05/11/07	
Chloroethane	EPA 8260B	TE11001	0.40	5.0	ND	1	05/11/07	05/11/07	
Chloroform	EPA 8260B	TE11001	0.33	2.0	ND	1	05/11/07	05/11/07	
Chloromethane	EPA 8260B	TE11001	0.40	5.0	ND	1	05/11/07	05/11/07	
2-Chlorotoluene	EPA 8260B	TE11001	0.28	5.0	ND	1	05/11/07	05/11/07	
4-Chlorotoluene	EPA 8260B	TE11001	0.29	5.0	ND	1	05/11/07	05/11/07	
Dibromochloromethane	EPA 8260B	TE11001	0.28	2.0	ND	1	05/11/07	05/11/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE11001	0.97	5.0	ND	1	05/11/07	05/11/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE11001	0.40	2.0	ND	1	05/11/07	05/11/07	
Dibromomethane	EPA 8260B	TE11001	0.36	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichlorobenzene	EPA 8260B	TE11001	0.32	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichlorobenzene	EPA 8260B	TE11001	0.35	2.0	ND	1	05/11/07	05/11/07	
1,4-Dichlorobenzene	EPA 8260B	TE11001	0.37	2.0	ND	1	05/11/07	05/11/07	
Dichlorodifluoromethane	EPA 8260B	TE11001	0.79	5.0	ND	1	05/11/07	05/11/07	
1,1-Dichloroethane	EPA 8260B	TE11001	0.27	2.0	0.60	1	05/11/07	05/11/07	J
1,2-Dichloroethane	EPA 8260B	TE11001	0.28	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloroethene	EPA 8260B	TE11001	0.42	5.0	ND	1	05/11/07	05/11/07	
cis-1,2-Dichloroethene	EPA 8260B	TE11001	0.32	2.0	9.9	1	05/11/07	05/11/07	
trans-1,2-Dichloroethene	EPA 8260B	TE11001	0.27	2.0	12	1	05/11/07	05/11/07	
1,2-Dichloropropane	EPA 8260B	TE11001	0.35	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichloropropane	EPA 8260B	TE11001	0.32	2.0	ND	1	05/11/07	05/11/07	
2,2-Dichloropropane	EPA 8260B	TE11001	0.34	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloropropene	EPA 8260B	TE11001	0.28	2.0	ND	1	05/11/07	05/11/07	
cis-1,3-Dichloropropene	EPA 8260B	TE11001	0.22	2.0	ND	1	05/11/07	05/11/07	
trans-1,3-Dichloropropene	EPA 8260B	TE11001	0.32	2.0	ND	1	05/11/07	05/11/07	
Ethylbenzene	EPA 8260B	TE11001	0.25	2.0	0.28	1	05/11/07	05/11/07	J
Hexachlorobutadiene	EPA 8260B	TE11001	0.38	5.0	ND	1	05/11/07	05/11/07	
Isopropylbenzene	EPA 8260B	TE11001	0.25	2.0	6.5	1	05/11/07	05/11/07	
p-Isopropyltoluene	EPA 8260B	TE11001	0.28	2.0	0.44	1	05/11/07	05/11/07	J
Methylene chloride	EPA 8260B	TE11001	0.95	5.0	ND	1	05/11/07	05/11/07	
Naphthalene	EPA 8260B	TE11001	0.41	5.0	ND	1	05/11/07	05/11/07	

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Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-02 (MW_106A_0507 - Water) - cont.</b>									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	7E11001	0.27	2.0	1.7	1	05/11/07	05/11/07	J
Styrene	EPA 8260B	7E11001	0.16	2.0	ND	1	05/11/07	05/11/07	
1,1,2-Tetrachloroethane	EPA 8260B	7E11001	0.27	5.0	ND	1	05/11/07	05/11/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E11001	0.24	2.0	ND	1	05/11/07	05/11/07	
Tetrachloroethene	EPA 8260B	7E11001	0.32	2.0	ND	1	05/11/07	05/11/07	
Toluene	EPA 8260B	7E11001	0.36	2.0	ND	1	05/11/07	05/11/07	
1,2,3-Trichlorobenzeoe	EPA 8260B	7E11001	0.30	5.0	ND	1	05/11/07	05/11/07	
1,2,4-Trichlorobenzeoe	EPA 8260B	7E11001	0.48	5.0	ND	1	05/11/07	05/11/07	
1,1,1-Trichloroethane	EPA 8260B	7E11001	0.30	2.0	ND	1	05/11/07	05/11/07	
1,1,2-Trichloroethane	EPA 8260B	7E11001	0.30	2.0	ND	1	05/11/07	05/11/07	
Trichloroethene	EPA 8260B	7E11001	0.26	2.0	0.28	1	05/11/07	05/11/07	J
Trichlorofluoromethane	EPA 8260B	7E11001	0.34	5.0	ND	1	05/11/07	05/11/07	
1,2,3-Trichloropropane	EPA 8260B	7E11001	0.40	10	ND	1	05/11/07	05/11/07	
1,2,4-Trimethylbenzeoe	EPA 8260B	7E11001	0.23	2.0	ND	1	05/11/07	05/11/07	
1,3,5-Trimethylbenzeoe	EPA 8260B	7E11001	0.26	2.0	ND	1	05/11/07	05/11/07	
Vinyl chloride	EPA 8260B	7E11001	0.30	5.0	7.9	1	05/11/07	05/11/07	
o-Xylene	EPA 8260B	7E11001	0.30	2.0	ND	1	05/11/07	05/11/07	
m,p-Xyleoes	EPA 8260B	7E11001	0.60	2.0	ND	1	05/11/07	05/11/07	
Xylenes, Total	EPA 8260B	7E11001	0.90	4.0	ND	1	05/11/07	05/11/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E11001	0.25	5.0	0.36	1	05/11/07	05/11/07	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E11001	0.28	5.0	ND	1	05/11/07	05/11/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E11001	0.33	5.0	ND	1	05/11/07	05/11/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E11001	0.32	5.0	ND	1	05/11/07	05/11/07	
tert-Butanol (TBA)	EPA 8260B	7E11001	4.9	50	20	1	05/11/07	05/11/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							88 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							95 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							97 %		

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-03 (MW_107A_0507 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	7E11025	0.28	2.0	42	1	05/11/07	05/11/07	
Bromobenzene	EPA 8260B	7E11025	0.27	5.0	ND	1	05/11/07	05/11/07	
Bromochloromethane	EPA 8260B	7E11025	0.32	5.0	ND	1	05/11/07	05/11/07	
Bromodichloromethane	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
Bromoform	EPA 8260B	7E11025	0.40	5.0	ND	1	05/11/07	05/11/07	
Bromomethane	EPA 8260B	7E11025	0.42	5.0	ND	1	05/11/07	05/11/07	
<b>n-Butylbenzene</b>	EPA 8260B	7E11025	0.37	5.0	<b>0.87</b>	1	05/11/07	05/11/07	J
<b>sec-Butylbenzene</b>	EPA 8260B	7E11025	0.25	5.0	<b>2.7</b>	1	05/11/07	05/11/07	J
<b>tert-Butylbenzene</b>	EPA 8260B	7E11025	0.22	5.0	<b>0.39</b>	1	05/11/07	05/11/07	J
Carbon tetrachloride	EPA 8260B	7E11025	0.28	5.0	ND	1	05/11/07	05/11/07	
Chlorobenzene	EPA 8260B	7E11025	0.36	2.0	ND	1	05/11/07	05/11/07	
Chloroethane	EPA 8260B	7E11025	0.40	5.0	ND	1	05/11/07	05/11/07	
Chloroform	EPA 8260B	7E11025	0.33	2.0	ND	1	05/11/07	05/11/07	
<b>Chloromethane</b>	EPA 8260B	7E11025	0.40	5.0	<b>2.5</b>	1	05/11/07	05/11/07	J
2-Chlorotoluene	EPA 8260B	7E11025	0.28	5.0	ND	1	05/11/07	05/11/07	
4-Chlorotoluene	EPA 8260B	7E11025	0.29	5.0	ND	1	05/11/07	05/11/07	
Dibromochloromethane	EPA 8260B	7E11025	0.28	2.0	ND	1	05/11/07	05/11/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E11025	0.97	5.0	ND	1	05/11/07	05/11/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E11025	0.40	2.0	ND	1	05/11/07	05/11/07	
Dibromomethane	EPA 8260B	7E11025	0.36	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichlorobenzene	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichlorobenzene	EPA 8260B	7E11025	0.35	2.0	ND	1	05/11/07	05/11/07	
1,4-Dichlorobenzene	EPA 8260B	7E11025	0.37	2.0	ND	1	05/11/07	05/11/07	
Dichlorodifluoromethane	EPA 8260B	7E11025	0.79	5.0	ND	1	05/11/07	05/11/07	
1,1-Dichloroethane	EPA 8260B	7E11025	0.27	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichloroethane	EPA 8260B	7E11025	0.28	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloroethene	EPA 8260B	7E11025	0.42	5.0	ND	1	05/11/07	05/11/07	
<b>cis-1,2-Dichloroethene</b>	EPA 8260B	7E11025	0.32	2.0	<b>6.6</b>	1	05/11/07	05/11/07	
<b>trans-1,2-Dichloroethene</b>	EPA 8260B	7E11025	0.27	2.0	<b>6.0</b>	1	05/11/07	05/11/07	
1,2-Dichloropropane	EPA 8260B	7E11025	0.35	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichloropropane	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
2,2-Dichloropropane	EPA 8260B	7E11025	0.34	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloropropene	EPA 8260B	7E11025	0.28	2.0	ND	1	05/11/07	05/11/07	
<b>cis-1,3-Dichloropropene</b>	EPA 8260B	7E11025	0.22	2.0	ND	1	05/11/07	05/11/07	
<b>trans-1,3-Dichloropropene</b>	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
Ethylbenzene	EPA 8260B	7E11025	0.25	2.0	<b>14</b>	1	05/11/07	05/11/07	
Hexachlorobutadiene	EPA 8260B	7E11025	0.38	5.0	ND	1	05/11/07	05/11/07	
<b>Isopropylbenzene</b>	EPA 8260B	7E11025	0.25	2.0	<b>20</b>	1	05/11/07	05/11/07	
p-Isopropyltoluene	EPA 8260B	7E11025	0.28	2.0	ND	1	05/11/07	05/11/07	
Methylene chloride	EPA 8260B	7E11025	0.95	5.0	ND	1	05/11/07	05/11/07	
Naphthalene	EPA 8260B	7E11025	0.41	5.0	<b>6.0</b>	1	05/11/07	05/11/07	

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-03 (MW_107A_0507 - Water) - cont.</b>									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	7E11025	0.27	2.0	15	1	05/11/07	05/11/07	
Styrene	EPA 8260B	7E11025	0.16	2.0	ND	1	05/11/07	05/11/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E11025	0.27	5.0	ND	1	05/11/07	05/11/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E11025	0.24	2.0	ND	1	05/11/07	05/11/07	
Tetrachloroethene	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
Toluene	EPA 8260B	7E11025	0.36	2.0	1.0	1	05/11/07	05/11/07	J
1,2,3-Trichlorobenzene	EPA 8260B	7E11025	0.30	5.0	ND	1	05/11/07	05/11/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E11025	0.48	5.0	ND	1	05/11/07	05/11/07	
1,1,1-Trichloroethane	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
1,1,2-Trichloroethane	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
Trichloroethene	EPA 8260B	7E11025	0.26	2.0	3.5	1	05/11/07	05/11/07	
Trichlorofluoromethane	EPA 8260B	7E11025	0.34	5.0	ND	1	05/11/07	05/11/07	
1,2,3-Trichloropropane	EPA 8260B	7E11025	0.40	10	ND	1	05/11/07	05/11/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E11025	0.23	2.0	ND	1	05/11/07	05/11/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E11025	0.26	2.0	0.29	1	05/11/07	05/11/07	J
Vinyl chloride	EPA 8260B	7E11025	0.30	5.0	2.0	1	05/11/07	05/11/07	J
o-Xylene	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
m,p-Xylenes	EPA 8260B	7E11025	0.60	2.0	17	1	05/11/07	05/11/07	
Xylenes, Total	EPA 8260B	7E11025	0.90	4.0	17	1	05/11/07	05/11/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E11025	0.25	5.0	ND	1	05/11/07	05/11/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E11025	0.28	5.0	ND	1	05/11/07	05/11/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E11025	0.33	5.0	ND	1	05/11/07	05/11/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E11025	0.32	5.0	ND	1	05/11/07	05/11/07	
tert-Butanol (TBA)	EPA 8260B	7E11025	4.9	50	21	1	05/11/07	05/11/07	J
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							93 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							96 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							97 %		

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Project ID: Former Cenex Refinery - 2006  
 54205.001  
 Report Number: IQE1102

Sampled: 05/10/07  
 Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-04 (MW_203_0507 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	TE11025	0.28	2.0	1.0	1	05/11/07	05/11/07	J
Bromobenzene	EPA 8260B	TE11025	0.27	5.0	ND	1	05/11/07	05/11/07	
Bromoform	EPA 8260B	TE11025	0.32	5.0	ND	1	05/11/07	05/11/07	
Bromochloromethane	EPA 8260B	TE11025	0.30	2.0	ND	1	05/11/07	05/11/07	
Bromodichloromethane	EPA 8260B	TE11025	0.40	5.0	ND	1	05/11/07	05/11/07	
Bromoform	EPA 8260B	TE11025	0.42	5.0	ND	1	05/11/07	05/11/07	
Bromomethane	EPA 8260B	TE11025	0.37	5.0	ND	1	05/11/07	05/11/07	
n-Butylbenzene	EPA 8260B	TE11025	0.25	5.0	ND	1	05/11/07	05/11/07	
sec-Butylbenzene	EPA 8260B	TE11025	0.22	5.0	ND	1	05/11/07	05/11/07	
Carbon tetrachloride	EPA 8260B	TE11025	0.28	5.0	ND	1	05/11/07	05/11/07	
Chlorobenzene	EPA 8260B	TE11025	0.36	2.0	0.56	1	05/11/07	05/11/07	J
Chloroethane	EPA 8260B	TE11025	0.40	5.0	ND	1	05/11/07	05/11/07	
Chloroform	EPA 8260B	TE11025	0.33	2.0	ND	1	05/11/07	05/11/07	
Chloromethane	EPA 8260B	TE11025	0.40	5.0	ND	1	05/11/07	05/11/07	
2-Chlorotoluene	EPA 8260B	TE11025	0.28	5.0	ND	1	05/11/07	05/11/07	
4-Chlorotoluene	EPA 8260B	TE11025	0.29	5.0	ND	1	05/11/07	05/11/07	
Dibromochloromethane	EPA 8260B	TE11025	0.28	2.0	ND	1	05/11/07	05/11/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE11025	0.97	5.0	ND	1	05/11/07	05/11/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE11025	0.40	2.0	ND	1	05/11/07	05/11/07	
Dibromomethane	EPA 8260B	TE11025	0.36	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichlorobenzene	EPA 8260B	TE11025	0.32	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichlorobenzene	EPA 8260B	TE11025	0.35	2.0	ND	1	05/11/07	05/11/07	
1,4-Dichlorobenzene	EPA 8260B	TE11025	0.37	2.0	ND	1	05/11/07	05/11/07	
Dichlorodifluoromethane	EPA 8260B	TE11025	0.79	5.0	ND	1	05/11/07	05/11/07	
1,1-Dichloroethane	EPA 8260B	TE11025	0.27	2.0	0.75	1	05/11/07	05/11/07	J
1,2-Dichloroethane	EPA 8260B	TE11025	0.28	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloroethene	EPA 8260B	TE11025	0.42	5.0	ND	1	05/11/07	05/11/07	
cis-1,2-Dichloroethene	EPA 8260B	TE11025	0.32	2.0	14	1	05/11/07	05/11/07	
trans-1,2-Dichloroethene	EPA 8260B	TE11025	0.27	2.0	2.8	1	05/11/07	05/11/07	
1,2-Dichloropropane	EPA 8260B	TE11025	0.35	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichloropropane	EPA 8260B	TE11025	0.32	2.0	ND	1	05/11/07	05/11/07	
2,2-Dichloropropane	EPA 8260B	TE11025	0.34	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloropropene	EPA 8260B	TE11025	0.28	2.0	ND	1	05/11/07	05/11/07	
cis-1,3-Dichloropropene	EPA 8260B	TE11025	0.22	2.0	ND	1	05/11/07	05/11/07	
trans-1,3-Dichloropropene	EPA 8260B	TE11025	0.32	2.0	ND	1	05/11/07	05/11/07	
Ethylbenzene	EPA 8260B	TE11025	0.25	2.0	ND	1	05/11/07	05/11/07	
Hexachlorobutadiene	EPA 8260B	TE11025	0.38	5.0	ND	1	05/11/07	05/11/07	
Isopropylbenzene	EPA 8260B	TE11025	0.25	2.0	ND	1	05/11/07	05/11/07	
p-Isopropyltoluene	EPA 8260B	TE11025	0.28	2.0	ND	1	05/11/07	05/11/07	
Methylene chloride	EPA 8260B	TE11025	0.95	5.0	ND	1	05/11/07	05/11/07	
Naphthalene	EPA 8260B	TE11025	0.41	5.0	ND	1	05/11/07	05/11/07	

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Project ID: Former Cenex Refinery - 2006  
 54205.001  
 Report Number: IQE1102

Sampled: 05/10/07  
 Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Date Qualifiers
<b>Sample ID: IQE1102-04 (MW_203_0507 - Water) - cont.</b>									
<b>Reporting Units: ug/l</b>									
n-Propylbenzene	EPA 8260B	7E11025	0.27	2.0	ND	1	05/11/07	05/11/07	
Styrene	EPA 8260B	7E11025	0.16	2.0	ND	1	05/11/07	05/11/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E11025	0.27	5.0	ND	1	05/11/07	05/11/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E11025	0.24	2.0	ND	1	05/11/07	05/11/07	
Tetrachloroethene	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
Toluene	EPA 8260B	7E11025	0.36	2.0	ND	1	05/11/07	05/11/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E11025	0.30	5.0	ND	1	05/11/07	05/11/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E11025	0.48	5.0	ND	1	05/11/07	05/11/07	
1,1,1-Trichloroethane	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
1,1,2-Trichloroethane	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
Trichloroethene	EPA 8260B	7E11025	0.26	2.0	ND	1	05/11/07	05/11/07	
Trichlorofluoromethane	EPA 8260B	7E11025	0.34	5.0	ND	1	05/11/07	05/11/07	
1,2,3-Trichloropropane	EPA 8260B	7E11025	0.40	10	ND	1	05/11/07	05/11/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E11025	0.23	2.0	ND	1	05/11/07	05/11/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E11025	0.26	2.0	ND	1	05/11/07	05/11/07	
<b>Vinyl chloride</b>	EPA 8260B	7E11025	0.30	5.0	<b>7.8</b>	1	05/11/07	05/11/07	
o-Xylene	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
m,p-Xylenes	EPA 8260B	7E11025	0.60	2.0	ND	1	05/11/07	05/11/07	
Xylenes, Total	EPA 8260B	7E11025	0.90	4.0	ND	1	05/11/07	05/11/07	
<b>Di-isopropyl Ether (DIPE)</b>	EPA 8260B	7E11025	0.25	5.0	<b>0.41</b>	1	05/11/07	05/11/07	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E11025	0.28	5.0	ND	1	05/11/07	05/11/07	
tert-Butyl Methyl Ether (TAME)	EPA 8260B	7E11025	0.33	5.0	ND	1	05/11/07	05/11/07	
<b>Methyl-tert-butyl Ether (MTBE)</b>	EPA 8260B	7E11025	0.32	5.0	<b>0.70</b>	1	05/11/07	05/11/07	J
<b>tert-Butanol (TBA)</b>	EPA 8260B	7E11025	4.9	50	<b>28</b>	1	05/11/07	05/11/07	J
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							91 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							96 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							93 %		

TestAmerica - Irvine, CA  
 Sushmitha Reddy  
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Project ID: Former Cenex Refinery - 2006  
 54205.001  
 Report Number: IQE1102

Sampled: 05/10/07  
 Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-05 (W_4_0507 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	7E11025	0.28	2.0	1.5	1	05/11/07	05/11/07	J
Bromobenzene	EPA 8260B	7E11025	0.27	5.0	ND	1	05/11/07	05/11/07	
Bromoform	EPA 8260B	7E11025	0.32	5.0	ND	1	05/11/07	05/11/07	
Bromochloromethane	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
Bromodichloromethane	EPA 8260B	7E11025	0.40	5.0	ND	1	05/11/07	05/11/07	
Bromoform	EPA 8260B	7E11025	0.42	5.0	ND	1	05/11/07	05/11/07	
Bromomethane	EPA 8260B	7E11025	0.37	5.0	0.43	1	05/11/07	05/11/07	J
n-Butylbenzene	EPA 8260B	7E11025	0.25	5.0	1.3	1	05/11/07	05/11/07	J
sec-Butylbenzene	EPA 8260B	7E11025	0.22	5.0	0.49	1	05/11/07	05/11/07	J
tert-Butylbenzene	EPA 8260B	7E11025	0.28	5.0	ND	1	05/11/07	05/11/07	
Carbon tetrachloride	EPA 8260B	7E11025	0.36	2.0	ND	1	05/11/07	05/11/07	
Chlorobenzene	EPA 8260B	7E11025	0.40	5.0	0.56	1	05/11/07	05/11/07	J
Chloroethane	EPA 8260B	7E11025	0.33	2.0	ND	1	05/11/07	05/11/07	
Chloroform	EPA 8260B	7E11025	0.40	5.0	ND	1	05/11/07	05/11/07	
Chloromethane	EPA 8260B	7E11025	0.28	5.0	ND	1	05/11/07	05/11/07	
2-Chlorotoluene	EPA 8260B	7E11025	0.29	5.0	ND	1	05/11/07	05/11/07	
4-Chlorotoluene	EPA 8260B	7E11025	0.36	2.0	ND	1	05/11/07	05/11/07	
Dibromochloromethane	EPA 8260B	7E11025	0.28	2.0	ND	1	05/11/07	05/11/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E11025	0.97	5.0	ND	1	05/11/07	05/11/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E11025	0.40	2.0	ND	1	05/11/07	05/11/07	
Dibromomethane	EPA 8260B	7E11025	0.36	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichlorobenzene	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichlorobenzene	EPA 8260B	7E11025	0.35	2.0	ND	1	05/11/07	05/11/07	
1,4-Dichlorobenzene	EPA 8260B	7E11025	0.37	2.0	0.55	1	05/11/07	05/11/07	J
Dichlorodifluoromethane	EPA 8260B	7E11025	0.79	5.0	ND	1	05/11/07	05/11/07	
1,1-Dichloroethane	EPA 8260B	7E11025	0.27	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichloroethane	EPA 8260B	7E11025	0.28	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloroethene	EPA 8260B	7E11025	0.42	5.0	ND	1	05/11/07	05/11/07	
cis-1,2-Dichloroethene	EPA 8260B	7E11025	0.32	2.0	3.8	1	05/11/07	05/11/07	
trans-1,2-Dichloroethene	EPA 8260B	7E11025	0.27	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichloropropane	EPA 8260B	7E11025	0.35	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichloropropane	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
2,2-Dichloropropane	EPA 8260B	7E11025	0.34	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloropropene	EPA 8260B	7E11025	0.28	2.0	ND	1	05/11/07	05/11/07	
cis-1,3-Dichloropropene	EPA 8260B	7E11025	0.22	2.0	ND	1	05/11/07	05/11/07	
trans-1,3-Dichloropropene	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
Ethylbenzene	EPA 8260B	7E11025	0.25	2.0	ND	1	05/11/07	05/11/07	
Hexachlorobutadiene	EPA 8260B	7E11025	0.38	5.0	ND	1	05/11/07	05/11/07	
Isopropylbenzene	EPA 8260B	7E11025	0.25	2.0	5.2	1	05/11/07	05/11/07	
p-Isopropyltoluene	EPA 8260B	7E11025	0.28	2.0	ND	1	05/11/07	05/11/07	
Methylene chloride	EPA 8260B	7E11025	0.95	5.0	ND	1	05/11/07	05/11/07	
Naphthalene	EPA 8260B	7E11025	0.41	5.0	ND	1	05/11/07	05/11/07	

TestAmerica - Irvine, CA  
 Sushmitha Reddy  
 Project Manager

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-05 (W_4_0507 - Water) - cont.</b>									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	7E11025	0.27	2.0	3.9	1	05/11/07	05/11/07	
Styrene	EPA 8260B	7E11025	0.16	2.0	ND	1	05/11/07	05/11/07	
1,1,2-Tetrachloroethane	EPA 8260B	7E11025	0.27	5.0	ND	1	05/11/07	05/11/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E11025	0.24	2.0	ND	1	05/11/07	05/11/07	
Tetrachloroethene	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
Toluene	EPA 8260B	7E11025	0.36	2.0	ND	1	05/11/07	05/11/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E11025	0.30	5.0	ND	1	05/11/07	05/11/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E11025	0.48	5.0	ND	1	05/11/07	05/11/07	
1,1,1-Trichloroethane	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
1,1,2-Trichloroethane	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
Trichloroethene	EPA 8260B	7E11025	0.26	2.0	ND	1	05/11/07	05/11/07	
Trichlorofluoromethane	EPA 8260B	7E11025	0.34	5.0	ND	1	05/11/07	05/11/07	
1,2,3-Trichloropropane	EPA 8260B	7E11025	0.40	10	ND	1	05/11/07	05/11/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E11025	0.23	2.0	ND	1	05/11/07	05/11/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E11025	0.26	2.0	ND	1	05/11/07	05/11/07	
Vinyl chloride	EPA 8260B	7E11025	0.30	5.0	1.0	1	05/11/07	05/11/07	J
o-Xylene	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
m,p-Xylenes	EPA 8260B	7E11025	0.60	2.0	ND	1	05/11/07	05/11/07	
Xylenes, Total	EPA 8260B	7E11025	0.90	4.0	ND	1	05/11/07	05/11/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E11025	0.25	5.0	ND	1	05/11/07	05/11/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E11025	0.28	5.0	ND	1	05/11/07	05/11/07	
tert-Butyl Methyl Ether (TAME)	EPA 8260B	7E11025	0.33	5.0	ND	1	05/11/07	05/11/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E11025	0.32	5.0	1.6	1	05/11/07	05/11/07	J
tert-Butanol (TBA)	EPA 8260B	7E11025	4.9	50	30	1	05/11/07	05/11/07	J
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							91 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							96 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							95 %		

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Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-06 (W_3A_0507 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	7E11025	0.28	2.0	0.66	1	05/11/07	05/11/07	J
Bromobenzene	EPA 8260B	7E11025	0.27	5.0	ND	1	05/11/07	05/11/07	
Bromochloromethane	EPA 8260B	7E11025	0.32	5.0	ND	1	05/11/07	05/11/07	
Bromodichloromethane	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
Bromoform	EPA 8260B	7E11025	0.40	5.0	ND	1	05/11/07	05/11/07	
Bromomethane	EPA 8260B	7E11025	0.42	5.0	ND	1	05/11/07	05/11/07	
n-Butylbenzene	EPA 8260B	7E11025	0.37	5.0	8.6	1	05/11/07	05/11/07	
sec-Butylbenzene	EPA 8260B	7E11025	0.25	5.0	6.1	1	05/11/07	05/11/07	
tert-Butylbenzene	EPA 8260B	7E11025	0.22	5.0	1.4	1	05/11/07	05/11/07	J
Carbon tetrachloride	EPA 8260B	7E11025	0.28	5.0	ND	1	05/11/07	05/11/07	
Chlorobenzene	EPA 8260B	7E11025	0.36	2.0	ND	1	05/11/07	05/11/07	
Chloroethane	EPA 8260B	7E11025	0.40	5.0	ND	1	05/11/07	05/11/07	
Chloroform	EPA 8260B	7E11025	0.33	2.0	ND	1	05/11/07	05/11/07	
Chloromethane	EPA 8260B	7E11025	0.40	5.0	ND	1	05/11/07	05/11/07	
2-Chlorotoluene	EPA 8260B	7E11025	0.28	5.0	ND	1	05/11/07	05/11/07	
4-Chlorotoluene	EPA 8260B	7E11025	0.29	5.0	ND	1	05/11/07	05/11/07	
Dibromochloromethane	EPA 8260B	7E11025	0.28	2.0	ND	1	05/11/07	05/11/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E11025	0.97	5.0	ND	1	05/11/07	05/11/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E11025	0.40	2.0	ND	1	05/11/07	05/11/07	
Dibromomethane	EPA 8260B	7E11025	0.36	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichlorobenzene	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichlorobenzene	EPA 8260B	7E11025	0.35	2.0	ND	1	05/11/07	05/11/07	
1,4-Dichlorobenzene	EPA 8260B	7E11025	0.37	2.0	ND	1	05/11/07	05/11/07	
Dichlorodifluoromethane	EPA 8260B	7E11025	0.79	5.0	ND	1	05/11/07	05/11/07	
1,1-Dichloroethane	EPA 8260B	7E11025	0.27	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichloroethane	EPA 8260B	7E11025	0.28	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloroethene	EPA 8260B	7E11025	0.42	5.0	ND	1	05/11/07	05/11/07	
cis-1,2-Dichloroethene	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
trans-1,2-Dichloroethene	EPA 8260B	7E11025	0.27	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichloropropane	EPA 8260B	7E11025	0.35	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichloropropane	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
2,2-Dichloropropane	EPA 8260B	7E11025	0.34	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloropropene	EPA 8260B	7E11025	0.28	2.0	ND	1	05/11/07	05/11/07	
cis-1,3-Dichloropropene	EPA 8260B	7E11025	0.22	2.0	ND	1	05/11/07	05/11/07	
trans-1,3-Dichloropropene	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
Ethylbenzene	EPA 8260B	7E11025	0.25	2.0	ND	1	05/11/07	05/11/07	
Hexachlorobutadiene	EPA 8260B	7E11025	0.38	5.0	ND	1	05/11/07	05/11/07	
Isopropylbenzene	EPA 8260B	7E11025	0.25	2.0	12	1	05/11/07	05/11/07	
p-Isopropyltoluene	EPA 8260B	7E11025	0.28	2.0	ND	1	05/11/07	05/11/07	
Methylene chloride	EPA 8260B	7E11025	0.95	5.0	ND	1	05/11/07	05/11/07	
Naphthalene	EPA 8260B	7E11025	0.41	5.0	16	1	05/11/07	05/11/07	

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-06 (W_3A_0507 - Water) - cont.</b>									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	7E11025	0.27	2.0	15	1	05/11/07	05/11/07	
Styrene	EPA 8260B	7E11025	0.16	2.0	ND	1	05/11/07	05/11/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E11025	0.27	5.0	ND	1	05/11/07	05/11/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E11025	0.24	2.0	ND	1	05/11/07	05/11/07	
Tetrachloroethene	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
Toluene	EPA 8260B	7E11025	0.36	2.0	ND	1	05/11/07	05/11/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E11025	0.30	5.0	ND	1	05/11/07	05/11/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E11025	0.48	5.0	ND	1	05/11/07	05/11/07	
1,1,1-Trichloroethane	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
1,1,2-Trichloroethane	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
Trichloroethene	EPA 8260B	7E11025	0.26	2.0	ND	1	05/11/07	05/11/07	
Trichlorofluoromethane	EPA 8260B	7E11025	0.34	5.0	ND	1	05/11/07	05/11/07	
1,2,3-Trichloropropane	EPA 8260B	7E11025	0.40	10	ND	1	05/11/07	05/11/07	
<b>1,2,4-Trimethylbenzene</b>	EPA 8260B	7E11025	0.23	2.0	<b>2.3</b>	1	05/11/07	05/11/07	
<b>1,3,5-Trimethylbenzene</b>	EPA 8260B	7E11025	0.26	2.0	<b>3.6</b>	1	05/11/07	05/11/07	
Vinyl chloride	EPA 8260B	7E11025	0.30	5.0	ND	1	05/11/07	05/11/07	
o-Xylene	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
m,p-Xylenes	EPA 8260B	7E11025	0.60	2.0	ND	1	05/11/07	05/11/07	
Xylenes, Total	EPA 8260B	7E11025	0.90	4.0	ND	1	05/11/07	05/11/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E11025	0.25	5.0	ND	1	05/11/07	05/11/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E11025	0.28	5.0	ND	1	05/11/07	05/11/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E11025	0.33	5.0	ND	1	05/11/07	05/11/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E11025	0.32	5.0	<b>7.8</b>	1	05/11/07	05/11/07	
<b>tert-Butanol (TBA)</b>	EPA 8260B	7E11025	4.9	50	<b>23</b>	1	05/11/07	05/11/07	J
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							94 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							96 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							92 %		

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-07 (W_1_0507 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	TE11025	0.28	2.0	110	1	05/11/07	05/11/07	
Bromobenzene	EPA 8260B	TE11025	0.27	5.0	ND	1	05/11/07	05/11/07	
Bromoform	EPA 8260B	TE11025	0.32	5.0	ND	1	05/11/07	05/11/07	
Bromochloromethane	EPA 8260B	TE11025	0.30	2.0	ND	1	05/11/07	05/11/07	
Bromodichloromethane	EPA 8260B	TE11025	0.40	5.0	ND	1	05/11/07	05/11/07	
Bromoform	EPA 8260B	TE11025	0.42	5.0	ND	1	05/11/07	05/11/07	
Bromomethane	EPA 8260B	TE11025	0.37	5.0	1.4	1	05/11/07	05/11/07	J
n-Butylbenzene	EPA 8260B	TE11025	0.25	5.0	3.4	1	05/11/07	05/11/07	J
sec-Butylbenzene	EPA 8260B	TE11025	0.22	5.0	0.58	1	05/11/07	05/11/07	J
tert-Butylbenzene	EPA 8260B	TE11025	0.28	5.0	ND	1	05/11/07	05/11/07	
Carbon tetrachloride	EPA 8260B	TE11025	0.36	2.0	ND	1	05/11/07	05/11/07	
Chlorobenzene	EPA 8260B	TE11025	0.40	5.0	1.9	1	05/11/07	05/11/07	J
Chloroethane	EPA 8260B	TE11025	0.33	2.0	ND	1	05/11/07	05/11/07	
Chloroform	EPA 8260B	TE11025	0.40	5.0	ND	1	05/11/07	05/11/07	
Chloromethane	EPA 8260B	TE11025	0.28	5.0	ND	1	05/11/07	05/11/07	
2-Chlorotoluene	EPA 8260B	TE11025	0.29	5.0	ND	1	05/11/07	05/11/07	
4-Chlorotoluene	EPA 8260B	TE11025	0.28	5.0	ND	1	05/11/07	05/11/07	
Dibromochloromethane	EPA 8260B	TE11025	0.97	5.0	ND	1	05/11/07	05/11/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE11025	0.40	2.0	ND	1	05/11/07	05/11/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE11025	0.36	2.0	ND	1	05/11/07	05/11/07	
Dibromomethane	EPA 8260B	TE11025	0.32	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichlorobenzene	EPA 8260B	TE11025	0.35	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichlorobenzene	EPA 8260B	TE11025	0.37	2.0	ND	1	05/11/07	05/11/07	
1,4-Dichlorobenzene	EPA 8260B	TE11025	0.79	5.0	ND	1	05/11/07	05/11/07	
Dichlorodifluoromethane	EPA 8260B	TE11025	0.27	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloroethane	EPA 8260B	TE11025	0.28	2.0	ND	1	05/11/07	05/11/07	
1,2-Dichloroethane	EPA 8260B	TE11025	0.42	5.0	ND	1	05/11/07	05/11/07	
cis-1,2-Dichloroethene	EPA 8260B	TE11025	0.32	2.0	ND	1	05/11/07	05/11/07	
trans-1,2-Dichloroethene	EPA 8260B	TE11025	0.27	2.0	0.42	1	05/11/07	05/11/07	J
1,2-Dichloropropane	EPA 8260B	TE11025	0.35	2.0	ND	1	05/11/07	05/11/07	
1,3-Dichloropropane	EPA 8260B	TE11025	0.32	2.0	ND	1	05/11/07	05/11/07	
2,2-Dichloropropane	EPA 8260B	TE11025	0.34	2.0	ND	1	05/11/07	05/11/07	
1,1-Dichloropropene	EPA 8260B	TE11025	0.28	2.0	ND	1	05/11/07	05/11/07	
cis-1,3-Dichloropropene	EPA 8260B	TE11025	0.22	2.0	ND	1	05/11/07	05/11/07	
trans-1,3-Dichloropropene	EPA 8260B	TE11025	0.32	2.0	ND	1	05/11/07	05/11/07	
Ethylbenzene	EPA 8260B	TE11025	0.25	2.0	0.61	1	05/11/07	05/11/07	J
Hexachlorobutadiene	EPA 8260B	TE11025	0.38	5.0	ND	1	05/11/07	05/11/07	
Isopropylbenzene	EPA 8260B	TE11025	0.25	2.0	21	1	05/11/07	05/11/07	
p-Isopropyltoluene	EPA 8260B	TE11025	0.28	2.0	1.1	1	05/11/07	05/11/07	J
Methylene chloride	EPA 8260B	TE11025	0.95	5.0	ND	1	05/11/07	05/11/07	
Naphthalene	EPA 8260B	TE11025	0.41	5.0	1.0	1	05/11/07	05/11/07	J

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-07 (W_1_0507 - Water) - cont.</b>									
Reporting Units: ug/l									
<b>n-Propylbenzene</b>	EPA 8260B	7E11025	0.27	2.0	<b>16</b>	1	05/11/07	05/11/07	
Styrene	EPA 8260B	7E11025	0.16	2.0	ND	1	05/11/07	05/11/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E11025	0.27	5.0	ND	1	05/11/07	05/11/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E11025	0.24	2.0	ND	1	05/11/07	05/11/07	
Tetrachloroethene	EPA 8260B	7E11025	0.32	2.0	ND	1	05/11/07	05/11/07	
Toluene	EPA 8260B	7E11025	0.36	2.0	<b>0.57</b>	1	05/11/07	05/11/07	J
1,2,3-Trichlorobenzene	EPA 8260B	7E11025	0.30	5.0	ND	1	05/11/07	05/11/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E11025	0.48	5.0	ND	1	05/11/07	05/11/07	
1,1,1-Trichloroethane	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
1,1,2-Trichloroethane	EPA 8260B	7E11025	0.30	2.0	ND	1	05/11/07	05/11/07	
Trichloroethene	EPA 8260B	7E11025	0.26	2.0	ND	1	05/11/07	05/11/07	
Trichlorofluoromethane	EPA 8260B	7E11025	0.34	5.0	ND	1	05/11/07	05/11/07	
1,2,3-Trichloropropane	EPA 8260B	7E11025	0.40	10	ND	1	05/11/07	05/11/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E11025	0.23	2.0	ND	1	05/11/07	05/11/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E11025	0.26	2.0	ND	1	05/11/07	05/11/07	
Vinyl chloride	EPA 8260B	7E11025	0.30	5.0	<b>1.8</b>	1	05/11/07	05/11/07	J
<b>o-Xylene</b>	EPA 8260B	7E11025	0.30	2.0	<b>0.32</b>	1	05/11/07	05/11/07	J
m,p-Xylenes	EPA 8260B	7E11025	0.60	2.0	ND	1	05/11/07	05/11/07	
Xylenes, Total	EPA 8260B	7E11025	0.90	4.0	ND	1	05/11/07	05/11/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E11025	0.25	5.0	ND	1	05/11/07	05/11/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E11025	0.28	5.0	ND	1	05/11/07	05/11/07	
tert-Butyl Methyl Ether (TAME)	EPA 8260B	7E11025	0.33	5.0	ND	1	05/11/07	05/11/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E11025	0.32	5.0	<b>28</b>	1	05/11/07	05/11/07	
<b>tert-Butanol (TBA)</b>	EPA 8260B	7E11025	4.9	50	<b>43</b>	1	05/11/07	05/11/07	J
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							90 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							95 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							94 %		

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Date Qualifiers
<b>Sample ID: IQE1102-08 (EW_1_0507 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	7E11025	0.56	4.0	19	2	05/11/07	05/11/07	
Bromobenzene	EPA 8260B	7E11025	0.54	10	ND	2	05/11/07	05/11/07	
Bromoform	EPA 8260B	7E11025	0.64	10	ND	2	05/11/07	05/11/07	
Bromochloromethane	EPA 8260B	7E11025	0.60	4.0	ND	2	05/11/07	05/11/07	
Bromodichloromethane	EPA 8260B	7E11025	0.60	4.0	ND	2	05/11/07	05/11/07	
Bromoform	EPA 8260B	7E11025	0.80	10	ND	2	05/11/07	05/11/07	
Bromomethane	EPA 8260B	7E11025	0.84	10	ND	2	05/11/07	05/11/07	
<b>n-Butylbenzene</b>	EPA 8260B	7E11025	0.74	10	12	2	05/11/07	05/11/07	
<b>sec-Butylbenzene</b>	EPA 8260B	7E11025	0.50	10	25	2	05/11/07	05/11/07	
<b>tert-Butylbenzene</b>	EPA 8260B	7E11025	0.44	10	3.9	2	05/11/07	05/11/07	J
Carbon tetrachloride	EPA 8260B	7E11025	0.56	10	ND	2	05/11/07	05/11/07	
Chlorobenzene	EPA 8260B	7E11025	0.72	4.0	ND	2	05/11/07	05/11/07	
Chloroethane	EPA 8260B	7E11025	0.80	10	ND	2	05/11/07	05/11/07	
Chloroform	EPA 8260B	7E11025	0.66	4.0	ND	2	05/11/07	05/11/07	
Chloromethane	EPA 8260B	7E11025	0.80	10	ND	2	05/11/07	05/11/07	
2-Chlorotoluene	EPA 8260B	7E11025	0.56	10	ND	2	05/11/07	05/11/07	
4-Chlorotoluene	EPA 8260B	7E11025	0.58	10	ND	2	05/11/07	05/11/07	
Dibromochloromethane	EPA 8260B	7E11025	0.56	4.0	ND	2	05/11/07	05/11/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E11025	1.9	10	ND	2	05/11/07	05/11/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E11025	0.80	4.0	ND	2	05/11/07	05/11/07	
Dibromomethane	EPA 8260B	7E11025	0.72	4.0	ND	2	05/11/07	05/11/07	
1,2-Dichlorobenzene	EPA 8260B	7E11025	0.64	4.0	ND	2	05/11/07	05/11/07	
1,3-Dichlorobenzene	EPA 8260B	7E11025	0.70	4.0	ND	2	05/11/07	05/11/07	
1,4-Dichlorobenzene	EPA 8260B	7E11025	0.74	4.0	ND	2	05/11/07	05/11/07	
Dichlorodifluoromethane	EPA 8260B	7E11025	1.6	10	ND	2	05/11/07	05/11/07	
1,1-Dichloroethane	EPA 8260B	7E11025	0.54	4.0	ND	2	05/11/07	05/11/07	
1,2-Dichloroethane	EPA 8260B	7E11025	0.56	4.0	ND	2	05/11/07	05/11/07	
1,1-Dichloroethene	EPA 8260B	7E11025	0.84	10	ND	2	05/11/07	05/11/07	
<b>cis-1,2-Dichloroethene</b>	EPA 8260B	7E11025	0.64	4.0	6.9	2	05/11/07	05/11/07	
<b>trans-1,2-Dichloroethene</b>	EPA 8260B	7E11025	0.54	4.0	6.9	2	05/11/07	05/11/07	
1,2-Dichloropropane	EPA 8260B	7E11025	0.70	4.0	ND	2	05/11/07	05/11/07	
1,3-Dichloropropane	EPA 8260B	7E11025	0.64	4.0	ND	2	05/11/07	05/11/07	
2,2-Dichloropropane	EPA 8260B	7E11025	0.68	4.0	ND	2	05/11/07	05/11/07	
1,1-Dichloropropene	EPA 8260B	7E11025	0.56	4.0	ND	2	05/11/07	05/11/07	
cis-1,3-Dichloropropene	EPA 8260B	7E11025	0.44	4.0	ND	2	05/11/07	05/11/07	
trans-1,3-Dichloropropene	EPA 8260B	7E11025	0.64	4.0	ND	2	05/11/07	05/11/07	
Ethylbenzene	EPA 8260B	7E11025	0.50	4.0	15	2	05/11/07	05/11/07	
Hexachlorobutadiene	EPA 8260B	7E11025	0.76	10	ND	2	05/11/07	05/11/07	
<b>Isopropylbenzene</b>	EPA 8260B	7E11025	0.50	4.0	130	2	05/11/07	05/11/07	
<b>p-Isopropyltoluene</b>	EPA 8260B	7E11025	0.56	4.0	1.5	2	05/11/07	05/11/07	J
Methylene chloride	EPA 8260B	7E11025	1.9	10	ND	2	05/11/07	05/11/07	
Naphthalene	EPA 8260B	7E11025	0.82	10	10	2	05/11/07	05/11/07	

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-08 (EW_1_0507 - Water) - cont.</b>									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	7E11025	0.54	4.0	110	2	05/11/07	05/11/07	
Styrene	EPA 8260B	7E11025	0.32	4.0	ND	2	05/11/07	05/11/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E11025	0.54	10	ND	2	05/11/07	05/11/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E11025	0.48	4.0	ND	2	05/11/07	05/11/07	
Tetrachloroethene	EPA 8260B	7E11025	0.64	4.0	ND	2	05/11/07	05/11/07	
Toluene	EPA 8260B	7E11025	0.72	4.0	1.5	2	05/11/07	05/11/07	J
1,2,3-Trichlorobenzene	EPA 8260B	7E11025	0.60	10	ND	2	05/11/07	05/11/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E11025	0.96	10	ND	2	05/11/07	05/11/07	
1,1,1-Trichloroethane	EPA 8260B	7E11025	0.60	4.0	ND	2	05/11/07	05/11/07	
1,1,2-Trichloroethane	EPA 8260B	7E11025	0.60	4.0	ND	2	05/11/07	05/11/07	
Trichloroethene	EPA 8260B	7E11025	0.52	4.0	0.92	2	05/11/07	05/11/07	J
Trichlorofluoromethane	EPA 8260B	7E11025	0.68	10	ND	2	05/11/07	05/11/07	
1,2,3-Trichloropropane	EPA 8260B	7E11025	0.80	20	ND	2	05/11/07	05/11/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E11025	0.46	4.0	2.6	2	05/11/07	05/11/07	J
1,3,5-Trimethylbenzene	EPA 8260B	7E11025	0.52	4.0	1.4	2	05/11/07	05/11/07	J
Vinyl chloride	EPA 8260B	7E11025	0.60	10	ND	2	05/11/07	05/11/07	
o-Xylene	EPA 8260B	7E11025	0.60	4.0	ND	2	05/11/07	05/11/07	
m,p-Xylenes	EPA 8260B	7E11025	1.2	4.0	3.7	2	05/11/07	05/11/07	J
Xylenes, Total	EPA 8260B	7E11025	1.8	8.0	4.1	2	05/11/07	05/11/07	J
Di-isopropyl Ether (DIPE)	EPA 8260B	7E11025	0.50	10	ND	2	05/11/07	05/11/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E11025	0.56	10	ND	2	05/11/07	05/11/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E11025	0.66	10	ND	2	05/11/07	05/11/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E11025	0.64	10	ND	2	05/11/07	05/11/07	
tert-Butanol (TBA)	EPA 8260B	7E11025	9.8	100	17	2	05/11/07	05/11/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							97 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							94 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							93 %		

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1102-02 (MW_106A_0507 - Water)</b>									
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E10154	0.00020	0.0020	ND	1	05/10/07	05/10/07	
<b>Sample ID: IQE1102-03 (MW_107A_0507 - Water)</b>									
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E10154	0.00020	0.0020	ND	1	05/10/07	05/10/07	
<b>Sample ID: IQE1102-04 (MW_203_0507 - Water)</b>									
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E10154	0.00020	0.0020	ND	1	05/10/07	05/10/07	
<b>Sample ID: IQE1102-05 (W_4_0507 - Water)</b>									
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E10154	0.00020	0.0020	ND	1	05/10/07	05/10/07	
<b>Sample ID: IQE1102-06 (W_3A_0507 - Water)</b>									
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E10154	0.00020	0.0020	ND	1	05/10/07	05/10/07	
<b>Sample ID: IQE1102-07 (W_1_0507 - Water)</b>									
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E10154	0.00020	0.0020	ND	1	05/10/07	05/10/07	
<b>Sample ID: IQE1102-08 (EW_1_0507 - Water)</b>									
<b>Reporting Units:</b> mg/l									
Chromium VI	EPA 7199	7E10154	0.00020	0.0020	ND	1	05/10/07	05/10/07	

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54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
Received: 05/10/07

## SHORT HOLD TIME DETAIL REPORT

	<b>Hold Time (in days)</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>	<b>Date/Time Extracted</b>	<b>Date/Time Analyzed</b>
<b>Sample ID: MW_106A_0507 (IQE1102-02) - Water</b>	EPA 7199	1	05/10/2007 08:05	05/10/2007 17:15	05/10/2007 19:30
					05/10/2007 19:47
<b>Sample ID: MW_107A_0507 (IQE1102-03) - Water</b>	EPA 7199	1	05/10/2007 08:50	05/10/2007 17:15	05/10/2007 19:30
					05/10/2007 19:58
<b>Sample ID: MW_203_0507 (IQE1102-04) - Water</b>	EPA 7199	1	05/10/2007 10:05	05/10/2007 17:15	05/10/2007 19:30
					05/10/2007 20:09
<b>Sample ID: W_4_0507 (IQE1102-05) - Water</b>	EPA 7199	1	05/10/2007 11:10	05/10/2007 17:15	05/10/2007 19:30
					05/10/2007 20:20
<b>Sample ID: W_3A_0507 (IQE1102-06) - Water</b>	EPA 7199	1	05/10/2007 13:10	05/10/2007 17:15	05/10/2007 19:30
					05/10/2007 20:32
<b>Sample ID: W_1_0507 (IQE1102-07) - Water</b>	EPA 7199	1	05/10/2007 14:20	05/10/2007 17:15	05/10/2007 19:30
					05/10/2007 20:43
<b>Sample ID: EW_1_0507 (IQE1102-08) - Water</b>	EPA 7199	1	05/10/2007 15:50	05/10/2007 17:15	05/10/2007 19:30
					05/10/2007 20:54

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Received: 05/10/07

## METHOD BLANK/QC DATA

### VOLATILE FUEL HYDROCARBONS (EPA 5030/8015M)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
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Batch: 7E18041 Extracted: 05/18/07

**Blank Analyzed: 05/18/2007 (7E18041-BLK1)**

GRO (C4 - C12)	ND	50	30	ug/l						
Surrogate 4-BFB (FID)	8.70			ug/l	10.0		87	65-140		

**LCS Analyzed: 05/18/2007 (7E18041-BS1)**

GRO (C4 - C12)	801	50	30	ug/l	800		100	80-120		
Surrogate 4-BFB (FID)	13.4			ug/l	10.0		134	65-140		

**Matrix Spike Analyzed: 05/18/2007 (7E18041-MS1)**

GRO (C4 - C12)	329	50	30	ug/l	220	100	104	65-140		
Surrogate 4-BFB (FID)	11.0			ug/l	10.0		110	65-140		

Source: IQE1136-03

**Matrix Spike Dup Analyzed: 05/18/2007 (7E18041-MSD1)**

GRO (C4 - C12)	324	50	30	ug/l	220	100	102	65-140	2	20
Surrogate 4-BFB (FID)	10.0			ug/l	10.0		100	65-140		

Source: IQE1136-03

Batch: 7E21043 Extracted: 05/21/07

**Blank Analyzed: 05/21/2007 (7E21043-BLK1)**

GRO (C4 - C12)	ND	50	30	ug/l						
Surrogate 4-BFB (FID)	9.11			ug/l	10.0		91	65-140		

**LCS Analyzed: 05/21/2007 (7E21043-BS1)**

GRO (C4 - C12)	806	50	30	ug/l	800		101	80-120		
Surrogate 4-BFB (FID)	13.0			ug/l	10.0		130	65-140		

**Matrix Spike Analyzed: 05/21/2007 (7E21043-MS1)**

GRO (C4 - C12)	234	50	30	ug/l	220	ND	106	65-140		
Surrogate 4-BFB (FID)	10.3			ug/l	10.0		103	65-140		

Source: IQE1098-17

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## METHOD BLANK/QC DATA

### VOLATILE FUEL HYDROCARBONS (EPA 5030/8015M)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 7E21043 Extracted: 05/21/07</u>											
<b>Matrix Spike Dup Analyzed: 05/21/2007 (7E21043-MSD1)</b>											
<b>Source: IQE1098-17</b>											
GRO (C4 - C12)	238	50	30	ug/l	220	ND	108	65-140	2	20	
Surrogate 4-BFB (FID)	9.75			ug/l	10.0		98	65-140			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11001 Extracted: 05/11/07</b>											
<b>Blank Analyzed: 05/11/2007 (7E11001-BLK1)</b>											
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.40	ug/l							
Bromomethane	ND	5.0	0.42	ug/l							
n-Butylbenzene	ND	5.0	0.37	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
tert-Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.40	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.40	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.97	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.40	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.42	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.32	ug/l							
2,2-Dichloropropane	ND	2.0	0.34	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.32	ug/l							

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11001 Extracted: 05/11/07</b>											
<b>Blank Analyzed: 05/11/2007 (7E11001-BLK1)</b>											
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.95	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.27	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.30	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.40	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.30	ug/l							
o-Xylene	ND	2.0	0.30	ug/l							
m,p-Xylenes	ND	2.0	0.60	ug/l							
Xylenes, Total	ND	4.0	0.90	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
tert-Butanol (TBA)	ND	50	4.9	ug/l							
Surrogate Dibromofluoromethane	22.8			ug/l	25.0		91	80-120			
Surrogate Toluene-d8	24.1			ug/l	25.0		96	80-120			
Surrogate 4-Bromofluorobenzene	23.3			ug/l	25.0		93	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11001 Extracted: 05/11/07</b>											
<b>LCS Analyzed: 05/11/2007 (7E11001-BS1)</b>											
Benzene	19.4	2.0	0.28	ug/l	25.0	78	70-120				
Bromobenzene	22.6	5.0	0.27	ug/l	25.0	90	75-120				
Bromoform	22.0	5.0	0.32	ug/l	25.0	88	70-130				
Bromochloromethane	23.0	2.0	0.30	ug/l	25.0	92	70-135				
Bromodichloromethane	22.7	5.0	0.40	ug/l	25.0	91	55-130				
Bromomethane	23.2	5.0	0.42	ug/l	25.0	93	65-140				
n-Butylbenzene	23.6	5.0	0.37	ug/l	25.0	94	70-130				
sec-Butylbenzene	23.0	5.0	0.25	ug/l	25.0	92	70-125				
tert-Butylbenzene	23.6	5.0	0.22	ug/l	25.0	94	70-125				
Carbon tetrachloride	24.8	5.0	0.28	ug/l	25.0	99	65-140				
Chlorobenzene	21.6	2.0	0.36	ug/l	25.0	86	75-120				
Chloroethane	21.7	5.0	0.40	ug/l	25.0	87	60-140				
Chloroform	20.3	2.0	0.33	ug/l	25.0	81	70-130				
Chloromethane	20.0	5.0	0.40	ug/l	25.0	80	50-140				
2-Chlorotoluene	21.5	5.0	0.28	ug/l	25.0	86	70-125				
4-Chlorotoluene	22.5	5.0	0.29	ug/l	25.0	90	75-125				
Dibromochloromethane	23.1	2.0	0.28	ug/l	25.0	92	70-140				
1,2-Dibromo-3-chloropropane	24.0	5.0	0.97	ug/l	25.0	96	50-135				
1,2-Dibromoethane (EDB)	23.2	2.0	0.40	ug/l	25.0	93	75-125				
Dibromomethane	20.7	2.0	0.36	ug/l	25.0	83	70-125				
1,2-Dichlorobenzene	23.5	2.0	0.32	ug/l	25.0	94	75-120				
1,3-Dichlorobenzene	23.1	2.0	0.35	ug/l	25.0	92	75-120				
1,4-Dichlorobenzene	22.4	2.0	0.37	ug/l	25.0	90	75-120				
Dichlorodifluoromethane	20.6	5.0	0.79	ug/l	25.0	82	35-155				
1,1-Dichloroethane	19.0	2.0	0.27	ug/l	25.0	76	70-125				
1,2-Dichloroethane	21.9	2.0	0.28	ug/l	25.0	88	60-140				
1,1-Dichloroethene	17.9	5.0	0.42	ug/l	25.0	72	70-125				
cis-1,2-Dichloroethene	19.2	2.0	0.32	ug/l	25.0	77	70-125				
trans-1,2-Dichloroethene	19.4	2.0	0.27	ug/l	25.0	78	70-125				
1,2-Dichloropropane	20.4	2.0	0.35	ug/l	25.0	82	70-125				
1,3-Dichloropropane	20.8	2.0	0.32	ug/l	25.0	83	70-120				
2,2-Dichloropropane	25.4	2.0	0.34	ug/l	25.0	102	65-140				
1,1-Dichloropropene	20.3	2.0	0.28	ug/l	25.0	81	75-130				
cis-1,3-Dichloropropene	20.4	2.0	0.22	ug/l	25.0	82	75-125				
trans-1,3-Dichloropropene	21.9	2.0	0.32	ug/l	25.0	88	70-125				

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11001 Extracted: 05/11/07</b>											
<b>LCS Analyzed: 05/11/2007 (7E11001-BS1)</b>											
Ethylbenzene	22.8	2.0	0.25	ug/l	25.0	91	75-125				
Hexachlorobutadiene	29.0	5.0	0.38	ug/l	25.0	116	65-135				
Isopropylbenzene	25.5	2.0	0.25	ug/l	25.0	102	75-130				
p-Isopropyltoluene	24.3	2.0	0.28	ug/l	25.0	97	75-125				
Meihylene chloride	14.4	5.0	0.95	ug/l	25.0	58	55-130				
Naphthalene	25.5	5.0	0.41	ug/l	25.0	102	55-135				
n-Propylbenzene	22.8	2.0	0.27	ug/l	25.0	91	75-130				
Styrene	24.0	2.0	0.16	ug/l	25.0	96	75-130				
1,1,1,2-Tetrachloroethane	25.9	5.0	0.27	ug/l	25.0	104	70-130				
1,1,2,2-Tetrachloroethane	20.9	2.0	0.24	ug/l	25.0	84	55-130				
Tetrachloroethene	23.2	2.0	0.32	ug/l	25.0	93	70-125				
Toluene	21.1	2.0	0.36	ug/l	25.0	84	70-120				
1,2,3-Trichlorobenzene	26.0	5.0	0.30	ug/l	25.0	104	65-125				
1,2,4-Trichlorobenzene	27.2	5.0	0.48	ug/l	25.0	109	70-135				
1,1,1-Trichloroethane	22.0	2.0	0.30	ug/l	25.0	88	65-135				
1,1,2-Trichloroethane	21.7	2.0	0.30	ug/l	25.0	87	70-125				
Trichloroethene	21.6	2.0	0.26	ug/l	25.0	86	70-125				
Trichlorofluoromethane	20.9	5.0	0.34	ug/l	25.0	84	65-145				
1,2,3-Trichloropropane	20.8	10	0.40	ug/l	25.0	83	60-130				
1,2,4-Trimethylbenzene	23.4	2.0	0.23	ug/l	25.0	94	75-125				
1,3,5-Trimethylbenzene	23.6	2.0	0.26	ug/l	25.0	94	75-125				
Vinyl chloride	21.8	5.0	0.30	ug/l	25.0	87	55-135				
o-Xylene	22.7	2.0	0.30	ug/l	25.0	91	75-125				
m,p-Xylenes	45.8	2.0	0.60	ug/l	50.0	92	75-125				
Xylenes, Total	68.5	4.0	0.90	ug/l	75.0	91	70-125				
Di-isopropyl Ether (DIPE)	20.3	5.0	0.25	ug/l	25.0	81	60-135				
Ethyl tert-Butyl Ether (ETBE)	21.2	5.0	0.28	ug/l	25.0	85	65-135				
tert-Amyl Methyl Ether (TAME)	21.1	5.0	0.33	ug/l	25.0	84	60-135				
Methyl-tert-butyl Ether (MTBE)	20.5	5.0	0.32	ug/l	25.0	82	60-135				M-3
tert-Butanol (TBA)	130	50	4.9	ug/l	125	104	70-135				M-3
Surrogate Dibromofluoromethane	23.8			ug/l	25.0	95	80-120				
Surrogate Toluene-d8	23.9			ug/l	25.0	96	80-120				
Surrogate 4-Bromofluorobenzene	23.9			ug/l	25.0	96	80-120				

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11001 Extracted: 05/11/07</b>											
<b>Matrix Spike Analyzed: 05/11/2007 (7E11001-MS1)</b>											
<b>Source: IQE0996-06</b>											
Benzene	31.8	2.0	0.28	ug/l	25.0	9.9	88	65-125			
Bromobenzene	22.4	5.0	0.27	ug/l	25.0	ND	90	70-125			
Bromochloromethane	23.9	5.0	0.32	ug/l	25.0	ND	96	65-135			
Bromodichloromethane	24.1	2.0	0.30	ug/l	25.0	ND	96	70-135			
Bromoform	21.6	5.0	0.40	ug/l	25.0	ND	86	55-135			
Bromomethane	24.6	5.0	0.42	ug/l	25.0	ND	98	55-145			
n-Butylbenzene	23.5	5.0	0.37	ug/l	25.0	ND	94	65-135			
sec-Butylbenzene	24.3	5.0	0.25	ug/l	25.0	1.4	92	70-125			
tert-Butylbenzene	23.6	5.0	0.22	ug/l	25.0	ND	94	65-130			
Carbon tetrachloride	26.2	5.0	0.28	ug/l	25.0	ND	105	65-140			
Chlorobenzene	22.3	2.0	0.36	ug/l	25.0	ND	89	75-125			
Chloroethane	24.8	5.0	0.40	ug/l	25.0	ND	99	55-140			
Chloroform	21.4	2.0	0.33	ug/l	25.0	ND	86	65-135			
Chloromethane	25.7	5.0	0.40	ug/l	25.0	ND	103	45-145			
2-Chlorotoluene	21.5	5.0	0.28	ug/l	25.0	ND	86	65-135			
4-Chlorotoluene	22.4	5.0	0.29	ug/l	25.0	ND	90	70-135			
Dibromochloromethane	22.2	2.0	0.28	ug/l	25.0	ND	89	65-140			
1,2-Dibromo-3-chloropropane	24.8	5.0	0.97	ug/l	25.0	ND	99	45-145			
1,2-Dibromoethane (EDB)	24.2	2.0	0.40	ug/l	25.0	ND	97	70-130			
Dibromomethane	22.8	2.0	0.36	ug/l	25.0	ND	91	65-135			
1,2-Dichlorobenzene	22.5	2.0	0.32	ug/l	25.0	ND	90	75-125			
1,3-Dichlorobenzene	22.6	2.0	0.35	ug/l	25.0	ND	90	75-125			
1,4-Dichlorobenzene	21.6	2.0	0.37	ug/l	25.0	ND	86	75-125			
Dichlorodifluoromethane	26.6	5.0	0.79	ug/l	25.0	ND	106	25-155			
1,1-Dichloroethane	20.7	2.0	0.27	ug/l	25.0	ND	83	65-130			
1,2-Dichloroethane	27.2	2.0	0.28	ug/l	25.0	4.0	93	60-140			
1,1-Dichloroethene	18.9	5.0	0.42	ug/l	25.0	ND	76	60-130			
cis-1,2-Dichloroethene	21.7	2.0	0.32	ug/l	25.0	ND	87	65-130			
trans-1,2-Dichloroethene	20.7	2.0	0.27	ug/l	25.0	ND	83	65-130			
1,2-Dichloropropane	22.8	2.0	0.35	ug/l	25.0	ND	91	65-130			
1,3-Dichloropropane	21.7	2.0	0.32	ug/l	25.0	ND	87	65-135			
2,2-Dichloropropane	21.2	2.0	0.34	ug/l	25.0	ND	85	60-145			
1,1-Dichloropropene	23.1	2.0	0.28	ug/l	25.0	ND	92	70-135			
cis-1,3-Dichloropropene	22.1	2.0	0.22	ug/l	25.0	ND	88	70-130			
trans-1,3-Dichloropropene	23.3	2.0	0.32	ug/l	25.0	ND	93	65-135			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11001 Extracted: 05/11/07</b>											
<b>Matrix Spike Analyzed: 05/11/2007 (7E11001-MS1)</b>											
<b>Source: IQE0996-06</b>											
Ethylbenzene	23.6	2.0	0.25	ug/l	25.0	ND	94	65-130			
Hexachlorobutadiene	26.7	5.0	0.38	ug/l	25.0	ND	107	60-135			
Isopropylbenzene	29.1	2.0	0.25	ug/l	25.0	3.7	102	70-135			
p-Isopropyltoluene	23.9	2.0	0.28	ug/l	25.0	0.71	93	65-130			
Methylene chloride	17.1	5.0	0.95	ug/l	25.0	ND	68	50-135			
Naphthalene	25.2	5.0	0.41	ug/l	25.0	ND	101	50-140			
n-Propylbenzene	23.2	2.0	0.27	ug/l	25.0	ND	93	70-135			
Styrene	2.86	2.0	0.16	ug/l	25.0	ND	11	50-145			M2
1,1,1,2-Tetrachloroethane	24.8	5.0	0.27	ug/l	25.0	ND	99	65-140			
1,1,2,2-Tetrachloroethane	21.3	2.0	0.24	ug/l	25.0	ND	85	55-135			
Tetrachloroethene	25.3	2.0	0.32	ug/l	25.0	ND	101	65-130			
Toluene	23.5	2.0	0.36	ug/l	25.0	ND	94	70-125			
1,2,3-Trichlorobenzene	24.9	5.0	0.30	ug/l	25.0	ND	100	60-135			
1,2,4-Trichlorobenzene	25.8	5.0	0.48	ug/l	25.0	ND	103	65-135			
1,1,1-Trichloroethane	24.1	2.0	0.30	ug/l	25.0	ND	96	65-140			
1,1,2-Trichloroethane	23.4	2.0	0.30	ug/l	25.0	ND	94	65-130			
Trichloroethene	41.2	2.0	0.26	ug/l	25.0	18	93	65-125			
Trichlorofluoromethane	24.2	5.0	0.34	ug/l	25.0	ND	97	60-145			
1,2,3-Trichloropropane	21.4	10	0.40	ug/l	25.0	ND	86	55-135			
1,2,4-Trimethylbenzene	23.1	2.0	0.23	ug/l	25.0	ND	92	55-135			
1,3,5-Trimethylbenzene	23.5	2.0	0.26	ug/l	25.0	ND	94	70-130			
Vinyl chloride	25.2	5.0	0.30	ug/l	25.0	ND	101	45-140			
o-Xylene	23.1	2.0	0.30	ug/l	25.0	ND	92	65-125			
m,p-Xylenes	47.5	2.0	0.60	ug/l	50.0	ND	95	65-130			
Xylenes, Total	70.6	4.0	0.90	ug/l	75.0	ND	94	60-130			
Di-isopropyl Ether (DIPE)	23.2	5.0	0.25	ug/l	25.0	ND	93	60-140			
Ethyl tert-Butyl Ether (ETBE)	33.8	5.0	0.28	ug/l	25.0	10	95	60-135			
tert-Amyl Methyl Ether (TAME)	101	5.0	0.33	ug/l	25.0	83	72	60-140			
Surrogate Dibromo <sup>14</sup> fluoromethane	22.5			ug/l	25.0		90	80-120			
Surrogate Toluene-d8	24.6			ug/l	25.0		98	80-120			
Surrogate 4-Bromo <sup>14</sup> fluorobenzene	24.2			ug/l	25.0		97	80-120			

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Project ID: Former Cenex Refinery - 2006  
54205.001  
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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11001 Extracted: 05/11/07</b>											
<b>Matrix Spike Dup Analyzed: 05/11/2007 (7E11001-MSD1)</b>											
<b>Source: IQE0996-06</b>											
Benzene	30.7	2.0	0.28	ug/l	25.0	9.9	83	65-125	4	20	
Bromobenzene	21.9	5.0	0.27	ug/l	25.0	ND	88	70-125	2	20	
Bromoform	22.5	5.0	0.32	ug/l	25.0	ND	90	65-135	6	25	
Bromochloromethane	22.4	2.0	0.30	ug/l	25.0	ND	90	70-135	7	20	
Bromodichloromethane	19.5	5.0	0.40	ug/l	25.0	ND	78	55-135	10	25	
Bromomethane	23.7	5.0	0.42	ug/l	25.0	ND	95	55-145	4	25	
Carbon tetrachloride	22.5	5.0	0.37	ug/l	25.0	ND	90	65-135	4	20	
Chlorobenzene	23.4	5.0	0.25	ug/l	25.0	1.4	88	70-125	4	20	
Chloroethane	22.8	5.0	0.22	ug/l	25.0	ND	91	65-130	3	20	
Chloroform	24.4	5.0	0.28	ug/l	25.0	ND	98	65-140	7	25	
Chloromethane	21.8	2.0	0.36	ug/l	25.0	ND	87	75-125	2	20	
Dibromochloromethane	24.2	5.0	0.40	ug/l	25.0	ND	97	45-145	6	25	
2-Chlorotoluene	20.7	5.0	0.28	ug/l	25.0	ND	83	65-135	4	20	
4-Chlorotoluene	21.4	5.0	0.29	ug/l	25.0	ND	86	70-135	5	20	
1,2-Dibromo-3-chloropropane	20.5	2.0	0.28	ug/l	25.0	ND	82	65-140	8	25	
1,2-Dibromoethane (EDB)	19.2	5.0	0.97	ug/l	25.0	ND	77	45-145	25	30	
Dibromomethane	22.3	2.0	0.40	ug/l	25.0	ND	89	70-130	8	25	
1,2-Dichlorobenzene	20.7	2.0	0.36	ug/l	25.0	ND	83	65-135	10	25	
1,2-Dichlorobenzene	21.7	2.0	0.32	ug/l	25.0	ND	87	75-125	4	20	
1,3-Dichlorobenzene	21.9	2.0	0.35	ug/l	25.0	ND	88	75-125	3	20	
1,4-Dichlorobenzene	20.9	2.0	0.37	ug/l	25.0	ND	84	75-125	3	20	
Dichlorodifluoromethane	24.4	5.0	0.79	ug/l	25.0	ND	98	25-155	9	30	
1,1-Dichloroethane	24.4	2.0	0.27	ug/l	25.0	ND	77	65-130	7	20	
cis-1,2-Dichloroethene	19.3	2.0	0.27	ug/l	25.0	ND	82	60-140	11	20	
trans-1,2-Dichloroethene	20.9	2.0	0.32	ug/l	25.0	ND	84	65-130	4	20	
1,2-Dichloropropane	17.6	5.0	0.42	ug/l	25.0	ND	70	60-130	7	20	
1,3-Dichloropropane	20.2	2.0	0.35	ug/l	25.0	ND	81	65-135	7	25	
2,2-Dichloropropane	19.6	2.0	0.27	ug/l	25.0	ND	78	65-130	5	20	
1,1-Dichloropropene	20.5	2.0	0.28	ug/l	25.0	ND	88	70-135	5	20	
cis-1,3-Dichloropropene	21.2	2.0	0.22	ug/l	25.0	ND	82	70-130	8	20	
trans-1,3-Dichloropropene	21.9	2.0	0.32	ug/l	25.0	ND	85	65-135	9	25	

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11001 Extracted: 05/11/07</b>											
<b>Matrix Spike Dup Analyzed: 05/11/2007 (7E11001-MSD1)</b>											
<b>Source: IQE0996-06</b>											
Ethylbenzene	22.6	2.0	0.25	ug/l	25.0	ND	90	65-130	4	20	
Hexachlorobutadiene	25.8	5.0	0.38	ug/l	25.0	ND	103	60-135	3	20	
Isopropylbenzene	28.5	2.0	0.25	ug/l	25.0	3.7	99	70-135	2	20	
p-Isopropyltoluene	22.9	2.0	0.28	ug/l	25.0	0.71	89	65-130	4	20	
Methylene chloride	16.6	5.0	0.95	ug/l	25.0	ND	66	50-135	3	20	
Naphthalene	22.2	5.0	0.41	ug/l	25.0	ND	89	50-140	13	30	
n-Propylbenzene	22.5	2.0	0.27	ug/l	25.0	ND	90	70-135	3	20	
Styrene	2.51	2.0	0.16	ug/l	25.0	ND	10	50-145	13	30	M2
1,1,1,2-Tetrachloroethane	24.0	5.0	0.27	ug/l	25.0	ND	96	65-140	3	20	
1,1,2,2-Tetrachloroethane	18.8	2.0	0.24	ug/l	25.0	ND	75	55-135	12	30	
Tetrachloroethene	24.3	2.0	0.32	ug/l	25.0	ND	97	65-130	4	20	
Toluene	22.3	2.0	0.36	ug/l	25.0	ND	89	70-125	5	20	
1,2,3-Trichlorobenzene	22.9	5.0	0.30	ug/l	25.0	ND	92	60-135	8	20	
1,2,4-Trichlorobenzene	24.5	5.0	0.48	ug/l	25.0	ND	98	65-135	5	20	
1,1,1-Trichloroethane	22.3	2.0	0.30	ug/l	25.0	ND	89	65-140	8	20	
1,1,2-Trichloroethane	21.4	2.0	0.30	ug/l	25.0	ND	86	65-130	9	25	
Trichloroethene	40.1	2.0	0.26	ug/l	25.0	18	88	65-125	3	20	
Trichlorofluoromethane	21.5	5.0	0.34	ug/l	25.0	ND	86	60-145	12	25	
1,2,3-Trichloropropane	18.2	10	0.40	ug/l	25.0	ND	73	55-135	16	30	
1,2,4-Trimethylbenzene	22.1	2.0	0.23	ug/l	25.0	ND	88	55-135	4	25	
1,3,5-Trimethylbenzene	22.7	2.0	0.26	ug/l	25.0	ND	91	70-130	3	20	
Vinyl chloride	23.9	5.0	0.30	ug/l	25.0	ND	96	45-140	5	30	
o-Xylene	22.4	2.0	0.30	ug/l	25.0	ND	90	65-125	3	20	
m,p-Xylenes	45.8	2.0	0.60	ug/l	50.0	ND	92	65-130	4	25	
Xylenes, Total	68.2	4.0	0.90	ug/l	75.0	ND	91	60-130	3	20	
Di-isopropyl Ether (DIPE)	21.7	5.0	0.25	ug/l	25.0	ND	87	60-140	7	25	
Ethyl tert-Butyl Ether (ETBE)	31.2	5.0	0.28	ug/l	25.0	10	85	60-135	8	25	
tert-Amyl Methyl Ether (TAME)	94.2	5.0	0.33	ug/l	25.0	83	45	60-140	7	30	M2
Surrogate Dibromo(methyl)fluoromethane	22.1			ug/l	25.0		88	80-120			
Surrogate Toluene-d8	24.2			ug/l	25.0		97	80-120			
Surrogate 4-Bromo(methyl)fluorobenzene	23.8			ug/l	25.0		95	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11025 Extracted: 05/11/07</b>											
<b>Blank Analyzed: 05/11/2007 (7E11025-BLK1)</b>											
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.40	ug/l							
Bromomethane	ND	5.0	0.42	ug/l							
n-Butylbenzene	ND	5.0	0.37	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
tert-Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.40	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.40	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.97	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.40	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.42	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.32	ug/l							
2,2-Dichloropropane	ND	2.0	0.34	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.32	ug/l							

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### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11025 Extracted: 05/11/07</b>											
<b>Blank Analyzed: 05/11/2007 (7E11025-BLK1)</b>											
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.95	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.27	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.30	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.40	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.30	ug/l							
o-Xylene	ND	2.0	0.30	ug/l							
m,p-Xylenes	ND	2.0	0.60	ug/l							
Xylenes, Total	ND	4.0	0.90	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
tert-Butanol (TBA)	ND	50	4.9	ug/l							
Surrogate Dibromofluoromethane	23.6			ug/l	25.0		94	80-120			
Surrogate Toluene-d8	23.6			ug/l	25.0		94	80-120			
Surrogate 4-Bromofluorobenzene	23.2			ug/l	25.0		93	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11025 Extracted: 05/11/07</b>											
<b>LCS Analyzed: 05/11/2007 (7E11025-BS1)</b>											
Benzene	22.1	2.0	0.28	ug/l	25.0		88	70-120			
Bromobenzene	22.5	5.0	0.27	ug/l	25.0		90	75-120			
Bromoform	24.1	5.0	0.32	ug/l	25.0		96	70-130			
Bromochloromethane	23.6	2.0	0.30	ug/l	25.0		94	70-135			
Bromodichloromethane	21.0	5.0	0.40	ug/l	25.0		84	55-130			
Bromomethane	28.0	5.0	0.42	ug/l	25.0		112	65-140			
n-Butylbenzene	23.7	5.0	0.37	ug/l	25.0		95	70-130			
sec-Butylbenzene	23.5	5.0	0.25	ug/l	25.0		94	70-125			
tert-Butylbenzene	24.3	5.0	0.22	ug/l	25.0		97	70-125			
Carbon tetrachloride	28.1	5.0	0.28	ug/l	25.0		112	65-140			
Chlorobenzene	22.1	2.0	0.36	ug/l	25.0		88	75-120			
Chloroethane	26.7	5.0	0.40	ug/l	25.0		107	60-140			
Chloroform	22.0	2.0	0.33	ug/l	25.0		88	70-130			
Chloromethane	24.1	5.0	0.40	ug/l	25.0		96	50-140			
2-Chlorotoluene	22.0	5.0	0.28	ug/l	25.0		88	70-125			
4-Chlorotoluene	22.6	5.0	0.29	ug/l	25.0		90	75-125			
Dibromochloromethane	22.0	2.0	0.28	ug/l	25.0		88	70-140			
1,2-Dibromo-3-chloropropane	21.8	5.0	0.97	ug/l	25.0		87	50-135			
1,2-Dibromoethane (EDB)	23.5	2.0	0.40	ug/l	25.0		94	75-125			
Dibromomethane	22.2	2.0	0.36	ug/l	25.0		89	70-125			
1,2-Dichlorobenzene	22.7	2.0	0.32	ug/l	25.0		91	75-120			
1,3-Dichlorobenzene	23.0	2.0	0.35	ug/l	25.0		92	75-120			
1,4-Dichlorobenzene	21.8	2.0	0.37	ug/l	25.0		87	75-120			
Dichlorodifluoromethane	24.2	5.0	0.79	ug/l	25.0		97	35-155			
1,1-Dichloroethane	21.6	2.0	0.27	ug/l	25.0		86	70-125			
1,2-Dichloroethane	23.4	2.0	0.28	ug/l	25.0		94	60-140			
1,1-Dichloroethene	21.9	5.0	0.42	ug/l	25.0		88	70-125			
cis-1,2-Dichloroethene	21.7	2.0	0.32	ug/l	25.0		87	70-125			
trans-1,2-Dichloroethene	22.7	2.0	0.27	ug/l	25.0		91	70-125			
1,2-Dichloropropane	22.2	2.0	0.35	ug/l	25.0		89	70-125			
1,3-Dichloropropane	20.9	2.0	0.32	ug/l	25.0		84	70-120			
2,2-Dichloropropane	29.6	2.0	0.34	ug/l	25.0		118	65-140			
1,1-Dichloropropene	23.4	2.0	0.28	ug/l	25.0		94	75-130			
cis-1,3-Dichloropropene	21.1	2.0	0.22	ug/l	25.0		84	75-125			
trans-1,3-Dichloropropene	22.4	2.0	0.32	ug/l	25.0		90	70-125			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11025 Extracted: 05/11/07</b>											
<b>LCS Analyzed: 05/11/2007 (7E11025-BS1)</b>											
Ethylbenzene	23.6	2.0	0.25	ug/l	25.0	94	75-125				
Hexachlorobutadiene	27.8	5.0	0.38	ug/l	25.0	111	65-135				
Isopropylbenzene	26.5	2.0	0.25	ug/l	25.0	106	75-130				
p-Isopropyltoluene	24.5	2.0	0.28	ug/l	25.0	98	75-125				
Meihylene chloride	17.8	5.0	0.95	ug/l	25.0	71	55-130				
Naphthalene	23.5	5.0	0.41	ug/l	25.0	94	55-135				
n-Propylbenzene	23.5	2.0	0.27	ug/l	25.0	94	75-130				
Styrene	24.0	2.0	0.16	ug/l	25.0	96	75-130				
1,1,1,2-Tetrachloroethane	25.3	5.0	0.27	ug/l	25.0	101	70-130				
1,1,2,2-Tetrachloroethane	19.8	2.0	0.24	ug/l	25.0	79	55-130				
Tetrachloroethene	25.0	2.0	0.32	ug/l	25.0	100	70-125				
Toluene	23.0	2.0	0.36	ug/l	25.0	92	70-120				
1,2,3-Trichlorobenzene	23.8	5.0	0.30	ug/l	25.0	95	65-125				
1,2,4-Trichlorobenzene	25.2	5.0	0.48	ug/l	25.0	101	70-135				
1,1,1-Trichloroethane	25.0	2.0	0.30	ug/l	25.0	100	65-135				
1,1,2-Trichloroethane	21.6	2.0	0.30	ug/l	25.0	86	70-125				
Trichloroethene	23.9	2.0	0.26	ug/l	25.0	96	70-125				
Trichlorofluoromethane	26.1	5.0	0.34	ug/l	25.0	104	65-145				
1,2,3-Trichloropropane	20.3	10	0.40	ug/l	25.0	81	60-130				
1,2,4-Trimethylbenzene	23.6	2.0	0.23	ug/l	25.0	94	75-125				
1,3,5-Trimethylbenzene	24.1	2.0	0.26	ug/l	25.0	96	75-125				
Vinyl chloride	26.8	5.0	0.30	ug/l	25.0	107	55-135				
o-Xylene	23.3	2.0	0.30	ug/l	25.0	93	75-125				
m,p-Xylenes	47.2	2.0	0.60	ug/l	50.0	94	75-125				
Xylenes, Total	70.6	4.0	0.90	ug/l	75.0	94	70-125				
Di-isopropyl Ether (DIPE)	21.7	5.0	0.25	ug/l	25.0	87	60-135				
Ethyl tert-Butyl Ether (ETBE)	22.5	5.0	0.28	ug/l	25.0	90	65-135				
tert-Amyl Methyl Ether (TAME)	21.8	5.0	0.33	ug/l	25.0	87	60-135				
Methyl-tert-butyl Ether (MTBE)	22.1	5.0	0.32	ug/l	25.0	88	60-135				
tert-Butanol (TBA)	126	50	4.9	ug/l	125	101	70-135				
Surrogate Dibromofluoromethane	23.6			ug/l	25.0	94	80-120				
Surrogate Toluene-d8	24.2			ug/l	25.0	97	80-120				
Surrogate 4-Bromofluorobenzene	23.0			ug/l	25.0	92	80-120				

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1102

Sampled: 05/10/07  
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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11025 Extracted: 05/11/07</b>											
<b>Matrix Spike Analyzed: 05/11/2007 (7E11025-MS1)</b>											
<b>Source: IQE1102-03</b>											
Benzene	62.0	2.0	0.28	ug/l	25.0	42	80	65-125			
Bromobenzene	22.2	5.0	0.27	ug/l	25.0	ND	89	70-125			
Bromochloromethane	24.6	5.0	0.32	ug/l	25.0	ND	98	65-135			
Bromodichloromethane	24.1	2.0	0.30	ug/l	25.0	ND	96	70-135			
Bromoform	21.0	5.0	0.40	ug/l	25.0	ND	84	55-135			
Bromomethane	17.0	5.0	0.42	ug/l	25.0	ND	68	55-145			
n-Butylbenzene	23.2	5.0	0.37	ug/l	25.0	0.87	89	65-135			
sec-Butylbenzene	25.1	5.0	0.25	ug/l	25.0	2.7	90	70-125			
tert-Butylbenzene	23.9	5.0	0.22	ug/l	25.0	0.39	94	65-130			
Carbon tetrachloride	25.8	5.0	0.28	ug/l	25.0	ND	103	65-140			
Chlorobenzene	22.0	2.0	0.36	ug/l	25.0	ND	88	75-125			
Chloroethane	24.7	5.0	0.40	ug/l	25.0	ND	99	55-140			
Chloroform	22.2	2.0	0.33	ug/l	25.0	ND	89	65-135			
Chloromethane	21.6	5.0	0.40	ug/l	25.0	2.5	76	45-145			
2-Chlorotoluene	21.0	5.0	0.28	ug/l	25.0	ND	84	65-135			
4-Chlorotoluene	21.8	5.0	0.29	ug/l	25.0	ND	87	70-135			
Dibromochloromethane	22.0	2.0	0.28	ug/l	25.0	ND	88	65-140			
1,2-Dibromo-3-chloropropane	21.1	5.0	0.97	ug/l	25.0	ND	84	45-145			
1,2-Dibromoethane (EDB)	23.5	2.0	0.40	ug/l	25.0	ND	94	70-130			
Dibromomethane	21.8	2.0	0.36	ug/l	25.0	ND	87	65-135			
1,2-Dichlorobenzene	22.0	2.0	0.32	ug/l	25.0	ND	88	75-125			
1,3-Dichlorobenzene	22.1	2.0	0.35	ug/l	25.0	ND	88	75-125			
1,4-Dichlorobenzene	21.2	2.0	0.37	ug/l	25.0	ND	85	75-125			
Dichlorodifluoromethane	17.3	5.0	0.79	ug/l	25.0	ND	69	25-155			
1,1-Dichloroethane	22.0	2.0	0.27	ug/l	25.0	ND	88	65-130			
1,2-Dichloroethane	23.0	2.0	0.28	ug/l	25.0	ND	92	60-140			
1,1-Dichloroethene	20.2	5.0	0.42	ug/l	25.0	ND	81	60-130			
cis-1,2-Dichloroethene	28.7	2.0	0.32	ug/l	25.0	6.6	88	65-130			
trans-1,2-Dichloroethene	28.1	2.0	0.27	ug/l	25.0	6.0	88	65-130			
1,2-Dichloropropane	22.6	2.0	0.35	ug/l	25.0	ND	90	65-130			
1,3-Dichloropropane	21.0	2.0	0.32	ug/l	25.0	ND	84	65-135			
2,2-Dichloropropane	27.1	2.0	0.34	ug/l	25.0	ND	108	60-145			
1,1-Dichloropropene	22.0	2.0	0.28	ug/l	25.0	ND	88	70-135			
cis-1,3-Dichloropropene	21.2	2.0	0.22	ug/l	25.0	ND	85	70-130			
trans-1,3-Dichloropropene	22.3	2.0	0.32	ug/l	25.0	ND	89	65-135			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11025 Extracted: 05/11/07</b>											
<b>Matrix Spike Analyzed: 05/11/2007 (7E11025-MS1)</b>											
<b>Source: IQE1102-03</b>											
Ethylbenzene	36.4	2.0	0.25	ug/l	25.0	14	90	65-130			
Hexachlorobutadiene	26.2	5.0	0.38	ug/l	25.0	ND	105	60-135			
Isopropylbenzene	44.5	2.0	0.25	ug/l	25.0	20	98	70-135			
p-Isopropyltoluene	23.7	2.0	0.28	ug/l	25.0	ND	95	65-130			
Methylene chloride	16.8	5.0	0.95	ug/l	25.0	ND	67	50-135			
Naphthalene	28.4	5.0	0.41	ug/l	25.0	6.0	90	50-140			
n-Propylbenzene	36.5	2.0	0.27	ug/l	25.0	15	86	70-135			
Styrene	21.5	2.0	0.16	ug/l	25.0	ND	86	50-145			
1,1,1,2-Tetrachloroethane	25.2	5.0	0.27	ug/l	25.0	ND	101	65-140			
1,1,2,2-Tetrachloroethane	19.6	2.0	0.24	ug/l	25.0	ND	78	55-135			
Tetrachloroethene	24.4	2.0	0.32	ug/l	25.0	ND	98	65-130			
Toluene	23.9	2.0	0.36	ug/l	25.0	1.0	92	70-125			
1,2,3-Trichlorobenzene	23.2	5.0	0.30	ug/l	25.0	ND	93	60-135			
1,2,4-Trichlorobenzene	24.4	5.0	0.48	ug/l	25.0	ND	98	65-135			
1,1,1-Trichloroethane	24.9	2.0	0.30	ug/l	25.0	ND	100	65-140			
1,1,2-Trichloroethane	23.0	2.0	0.30	ug/l	25.0	ND	92	65-130			
Trichloroethene	26.6	2.0	0.26	ug/l	25.0	3.5	92	65-125			
Trichlorofluoromethane	23.2	5.0	0.34	ug/l	25.0	ND	93	60-145			
1,2,3-Trichloropropane	19.8	10	0.40	ug/l	25.0	ND	79	55-135			
1,2,4-Trimethylbenzene	22.9	2.0	0.23	ug/l	25.0	ND	92	55-135			
1,3,5-Trimethylbenzene	23.2	2.0	0.26	ug/l	25.0	0.29	92	70-130			
Vinyl chloride	25.2	5.0	0.30	ug/l	25.0	2.0	93	45-140			
o-Xylene	23.3	2.0	0.30	ug/l	25.0	ND	93	65-125			
m,p-Xylenes	62.8	2.0	0.60	ug/l	50.0	17	92	65-130			
Xylenes, Total	86.0	4.0	0.90	ug/l	75.0	17	92	60-130			
Di-isopropyl Ether (DIPE)	22.3	5.0	0.25	ug/l	25.0	ND	89	60-140			
Ethyl tert-Butyl Ether (ETBE)	23.1	5.0	0.28	ug/l	25.0	ND	92	60-135			
tert-Amyl Methyl Ether (TAME)	22.2	5.0	0.33	ug/l	25.0	ND	89	60-140			
Methyl-tert-butyl Ether (MTBE)	22.7	5.0	0.32	ug/l	25.0	ND	91	55-145			
tert-Butanol (TBA)	146	50	4.9	ug/l	125	21	100	65-140			
Surrogate Dibromofluoromethane	23.8			ug/l	25.0		95	80-120			
Surrogate Toluene-d8	24.4			ug/l	25.0		98	80-120			
Surrogate 4-Bromofluorobenzene	23.9			ug/l	25.0		96	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11025 Extracted: 05/11/07</b>											
<b>Matrix Spike Dup Analyzed: 05/11/2007 (7E11025-MSD1)</b>											
<b>Source: IQE1102-03</b>											
Benzene	62.0	2.0	0.28	ug/l	25.0	42	80	65-125	0	20	
Bromobenzene	22.6	5.0	0.27	ug/l	25.0	ND	90	70-125	2	20	
Bromochloromethane	25.2	5.0	0.32	ug/l	25.0	ND	101	65-135	2	25	
Bromodichloromethane	24.0	2.0	0.30	ug/l	25.0	ND	96	70-135	0	20	
Bromoform	22.1	5.0	0.40	ug/l	25.0	ND	88	55-135	5	25	
Bromomethane	16.9	5.0	0.42	ug/l	25.0	ND	68	55-145	1	25	
n-Butylbenzene	23.0	5.0	0.37	ug/l	25.0	0.87	89	65-135	1	20	
sec-Butylbenzene	24.9	5.0	0.25	ug/l	25.0	2.7	89	70-125	1	20	
tert-Butylbenzene	23.5	5.0	0.22	ug/l	25.0	0.39	92	65-130	2	20	
Carbon tetrachloride	25.3	5.0	0.28	ug/l	25.0	ND	101	65-140	2	25	
Chlorobenzene	22.5	2.0	0.36	ug/l	25.0	ND	90	75-125	2	20	
Chloroethane	25.3	5.0	0.40	ug/l	25.0	ND	101	55-140	2	25	
Chloroform	22.1	2.0	0.33	ug/l	25.0	ND	88	65-135	1	20	
Chloromethane	21.5	5.0	0.40	ug/l	25.0	2.5	76	45-145	1	25	
2-Chlorotoluene	21.0	5.0	0.28	ug/l	25.0	ND	84	65-135	0	20	
4-Chlorotoluene	21.8	5.0	0.29	ug/l	25.0	ND	87	70-135	0	20	
Dibromochloromethane	22.3	2.0	0.28	ug/l	25.0	ND	89	65-140	1	25	
1,2-Dibromo-3-chloropropane	22.8	5.0	0.97	ug/l	25.0	ND	91	45-145	8	30	
1,2-Dibromoethane (EDB)	24.3	2.0	0.40	ug/l	25.0	ND	97	70-130	3	25	
Dibromomethane	22.9	2.0	0.36	ug/l	25.0	ND	92	65-135	5	25	
1,2-Dichlorobenzene	22.6	2.0	0.32	ug/l	25.0	ND	90	75-125	3	20	
1,3-Dichlorobenzene	22.4	2.0	0.35	ug/l	25.0	ND	90	75-125	1	20	
1,4-Dichlorobenzene	21.4	2.0	0.37	ug/l	25.0	ND	86	75-125	1	20	
Dichlorodifluoromethane	17.3	5.0	0.79	ug/l	25.0	ND	69	25-155	0	30	
1,1-Dichloroethane	22.1	2.0	0.27	ug/l	25.0	ND	88	65-130	1	20	
1,2-Dichloroethane	22.9	2.0	0.28	ug/l	25.0	ND	92	60-140	0	20	
1,1-Dichloroethene	20.3	5.0	0.42	ug/l	25.0	ND	81	60-130	1	20	
cis-1,2-Dichloroethene	28.9	2.0	0.32	ug/l	25.0	6.6	89	65-130	1	20	
trans-1,2-Dichloroethene	28.7	2.0	0.27	ug/l	25.0	6.0	91	65-130	2	20	
1,2-Dichloropropane	22.8	2.0	0.35	ug/l	25.0	ND	91	65-130	1	20	
1,3-Dichloropropane	21.8	2.0	0.32	ug/l	25.0	ND	87	65-135	4	25	
2,2-Dichloropropane	27.1	2.0	0.34	ug/l	25.0	ND	108	60-145	0	25	
1,1-Dichloropropene	22.0	2.0	0.28	ug/l	25.0	ND	88	70-135	0	20	
cis-1,3-Dichloropropene	21.4	2.0	0.22	ug/l	25.0	ND	86	70-130	1	20	
trans-1,3-Dichloropropene	22.6	2.0	0.32	ug/l	25.0	ND	90	65-135	1	25	

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E11025 Extracted: 05/11/07</b>											
<b>Matrix Spike Dup Analyzed: 05/11/2007 (7E11025-MSD1)</b>											
<b>Source: IQE1102-03</b>											
Ethylbenzene	36.6	2.0	0.25	ug/l	25.0	14	90	65-130	1	20	
Hexachlorobutadiene	26.3	5.0	0.38	ug/l	25.0	ND	105	60-135	0	20	
Isopropylbenzene	43.5	2.0	0.25	ug/l	25.0	20	94	70-135	2	20	
p-Isopropyltoluene	23.4	2.0	0.28	ug/l	25.0	ND	94	65-130	1	20	
Methylene chloride	17.4	5.0	0.95	ug/l	25.0	ND	70	50-135	4	20	
Naphthalene	30.3	5.0	0.41	ug/l	25.0	6.0	97	50-140	6	30	
n-Propylbenzene	35.8	2.0	0.27	ug/l	25.0	15	83	70-135	2	20	
Styrene	21.0	2.0	0.16	ug/l	25.0	ND	84	50-145	2	30	
1,1,1,2-Tetrachloroethane	25.4	5.0	0.27	ug/l	25.0	ND	102	65-140	1	20	
1,1,2,2-Tetrachloroethane	20.7	2.0	0.24	ug/l	25.0	ND	83	55-135	5	30	
Tetrachloroethene	24.5	2.0	0.32	ug/l	25.0	ND	98	65-130	0	20	
Toluene	24.2	2.0	0.36	ug/l	25.0	1.0	93	70-125	1	20	
1,2,3-Trichlorobenzene	24.4	5.0	0.30	ug/l	25.0	ND	98	60-135	5	20	
1,2,4-Trichlorobenzene	25.3	5.0	0.48	ug/l	25.0	ND	101	65-135	4	20	
1,1,1-Trichloroethane	24.6	2.0	0.30	ug/l	25.0	ND	98	65-140	1	20	
1,1,2-Trichloroethane	23.9	2.0	0.30	ug/l	25.0	ND	96	65-130	4	25	
Trichloroethene	27.1	2.0	0.26	ug/l	25.0	3.5	94	65-125	2	20	
Trichlorofluoromethane	22.2	5.0	0.34	ug/l	25.0	ND	89	60-145	4	25	
1,2,3-Trichloropropane	20.8	10	0.40	ug/l	25.0	ND	83	55-135	5	30	
1,2,4-Trimethylbenzene	22.7	2.0	0.23	ug/l	25.0	ND	91	55-135	1	25	
1,3,5-Trimethylbenzene	23.1	2.0	0.26	ug/l	25.0	0.29	91	70-130	0	20	
Vinyl chloride	25.2	5.0	0.30	ug/l	25.0	2.0	93	45-140	0	30	
o-Xylene	23.4	2.0	0.30	ug/l	25.0	ND	94	65-125	0	20	
m,p-Xylenes	64.0	2.0	0.60	ug/l	50.0	17	94	65-130	2	25	
Xylenes, Total	87.4	4.0	0.90	ug/l	75.0	17	94	60-130	2	20	
Di-isopropyl Ether (DIPE)	22.3	5.0	0.25	ug/l	25.0	ND	89	60-140	0	25	
Ethyl tert-Butyl Ether (ETBE)	23.4	5.0	0.28	ug/l	25.0	ND	94	60-135	1	25	
tert-Amyl Methyl Ether (TAME)	23.3	5.0	0.33	ug/l	25.0	ND	93	60-140	5	30	
Methyl-tert-butyl Ether (MTBE)	23.8	5.0	0.32	ug/l	25.0	ND	95	55-145	5	25	
tert-Butanol (TBA)	144	50	4.9	ug/l	125	21	98	65-140	1	25	
Surrogate Dibromofluoromethane	23.4			ug/l	25.0		94	80-120			
Surrogate Toluene-d8	24.2			ug/l	25.0		97	80-120			
Surrogate 4-Bromofluorobenzene	24.0			ug/l	25.0		96	80-120			

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E10154 Extracted: 05/10/07</b>											
<b>Blank Analyzed: 05/10/2007 (7E10154-BLK1)</b>											
Chromium VI	ND	0.0020	0.00020	mg/l							
<b>LCS Analyzed: 05/10/2007 (7E10154-BS1)</b>											
Chromium VI	0.0476	0.0020	0.00020	mg/l	0.0500		95	90-110			
<b>Matrix Spike Analyzed: 05/10/2007 (7E10154-MS1)</b>											
Chromium VI	0.0520	0.0020	0.00020	mg/l	0.0500	ND	104	80-115			
<b>Matrix Spike Dup Analyzed: 05/10/2007 (7E10154-MSD1)</b>											
Chromium VI	0.0518	0.0020	0.00020	mg/l	0.0500	ND	104	80-115	0	15	

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## DATA QUALIFIERS AND DEFINITIONS

- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M-3** Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
- ZX** Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

## ADDITIONAL COMMENTS

**For 8260 analyses:**

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

**For GRO (C4-C12):**

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

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## Certification Summary

### TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 7199	Water	X	X
EPA 8015B	Water	X	X
EPA 8260B	Water	X	X

*Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at [www.testamericainc.com](http://www.testamericainc.com)*

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

# TestAmerica

ANALYTICAL TESTING CORPORATION

## CHAIN OF CUSTODY FORM

17461 Derian Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370 1046  
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
 2520 E. Sunset Rd #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

IQE1102

Page 1 of 1

Client Name/Address: ARCADIS BBL El Camino Real, Ste # 200 Irvine, CA 92602		Project/PO Number: Former CBNG Refinery BQ54205		Analysis Required								
Project Manager: Jennifer Wiley		Phone Number: (714) 730-9052		VOCs	(8266)	(80158)	(7109)	(5H 23208)	Z	(3000)	Furans	
Sampler: Maher Zein		Fax Number: (714) 730-9345							N		Metals	
		Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives				Special Instructions
TB051007		W	VGA	3	5.10.07	0700	HCl	✓	✓			See Attached
MW-106A-0507		VGA Pkg	Pkg	6		0805	Various	✓	✓	✓		
MW-107A-0507						0850		✓	✓	✓		
MW-203-0507						1005		✓	✓	✓		
W4-0507						1110		✓	✓	✓		
W-3A-0507						1310		✓	✓	✓		
W-1-0507						1420		✓	✓	✓		
EW-1-0507						1550		✓	✓	✓		
<p style="text-align: center;"><i>No More Samples</i> <i>MZ</i>      <i>JS. 10. 07</i></p>												
Relinquished By:	Date/Time:		Received By:	Date/Time:		Turnaround Time: (Check)						
<i>Maher Zein</i>	05.10.07 16:00		<i>Heather Lee</i>	5/10/07 16:00		same day _____ 72 hours _____						
Relinquished By:	Date/Time:		Received By:	Date/Time:		24 hours _____ 5 days _____						
<i>See Below</i>	05/10/07 17:15					48 hours _____ normal _____ ✓						
Relinquished By:	Date/Time:		Received in Lab By:	Date/Time:		Sample Integrity: (Check)						
			<i>Vin Barile</i>	5/10/07 1715		intact <input checked="" type="checkbox"/> on ice <input checked="" type="checkbox"/>						

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

# 428

## LABORATORY REPORT

Prepared For: Arcadis - Blasland, Bouck & Lee  
3240 El Camino Real, Suite 200  
Irvine, CA 92602

Attention: Jennifer Wiley

Project: Former Cenco Refinery - 2006  
54205.001

Sampled: 05/11/07  
Received: 05/11/07  
Issued: 05/22/07 16:35

NELAP #01108CA California ELAP#1197 CSDLAC #10256

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.*

*This entire report was reviewed and approved for release.*

## SAMPLE CROSS REFERENCE

LABORATORY ID	CLIENT ID	MATRIX
IQE1328-01	TB051107	Water
IQE1328-02	MW_101_0507	Water
IQE1328-03	W_10_0507	Water
IQE1328-04	W_10_0507D	Water
IQE1328-05	MW_504_0507	Water
IQE1328-06	MW_503B_0507	Water
IQE1328-07	MW_502_0507	Water
IQE1328-08	MW_501A_0507	Water

Reviewed By:

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

Arcadis - Blasland, Bouck & Lee  
3240 El Camino Real, Suite 200  
Irvine, CA 92602  
Attention: Jennifer Wiley

Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE FUEL HYDROCARBONS (EPA 5030/8015M)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Date Qualifiers
<b>Sample ID: IQE1328-01 (TB051107 - Water)</b>									
<b>Reporting Units: ug/l</b>									
GRO (C4 - C12)	EPA 8015B	7E21044	30	50	ND	1	05/21/07	05/21/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1328-02 (MW_101_0507 - Water)</b>									
<b>Reporting Units: ug/l</b>									
GRO (C4 - C12)	EPA 8015B	7E21044	30	50	1100	1	05/21/07	05/21/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1328-03 (W_10_0507 - Water)</b>									
<b>Reporting Units: ug/l</b>									
GRO (C4 - C12)	EPA 8015B	7E21044	600	1000	7900	20	05/21/07	05/21/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1328-04 (W_10_0507D - Water)</b>									
<b>Reporting Units: ug/l</b>									
GRO (C4 - C12)	EPA 8015B	7E21044	600	1000	7800	20	05/21/07	05/21/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1328-05 (MW_504_0507 - Water)</b>									
<b>Reporting Units: ug/l</b>									
GRO (C4 - C12)	EPA 8015B	7E21044	600	1000	13000	20	05/21/07	05/21/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1328-06 (MW_503B_0507 - Water)</b>									
<b>Reporting Units: ug/l</b>									
GRO (C4 - C12)	EPA 8015B	7E21044	300	500	1800	10	05/21/07	05/21/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1328-07 (MW_502_0507 - Water)</b>									
<b>Reporting Units: ug/l</b>									
GRO (C4 - C12)	EPA 8015B	7E21044	1500	2500	25000	50	05/21/07	05/21/07	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<b>Sample ID: IQE1328-08 (MW_501A_0507 - Water)</b>									
<b>Reporting Units: ug/l</b>									
GRO (C4 - C12)	EPA 8015B	7E21044	600	1000	9100	20	05/21/07	05/21/07	QP
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									

TestAmerica - Irvine, CA  
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Project Manager

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Irvine, CA 92602  
Attention: Jennifer Wiley

Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-01 (TB051107 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	TE13016	0.28	2.0	ND	1	05/13/07	05/13/07	
Bromobenzene	EPA 8260B	TE13016	0.27	5.0	ND	1	05/13/07	05/13/07	
Bromochloromethane	EPA 8260B	TE13016	0.32	5.0	ND	1	05/13/07	05/13/07	
Bromodichloromethane	EPA 8260B	TE13016	0.30	2.0	ND	1	05/13/07	05/13/07	
Bromoform	EPA 8260B	TE13016	0.40	5.0	ND	1	05/13/07	05/13/07	
Bromomethane	EPA 8260B	TE13016	0.42	5.0	ND	1	05/13/07	05/13/07	
n-Butylbenzene	EPA 8260B	TE13016	0.37	5.0	ND	1	05/13/07	05/13/07	
sec-Butylbenzene	EPA 8260B	TE13016	0.25	5.0	ND	1	05/13/07	05/13/07	
tert-Butylbenzene	EPA 8260B	TE13016	0.22	5.0	ND	1	05/13/07	05/13/07	
Carbon tetrachloride	EPA 8260B	TE13016	0.28	5.0	ND	1	05/13/07	05/13/07	
Chlorobenzene	EPA 8260B	TE13016	0.36	2.0	ND	1	05/13/07	05/13/07	
Chloroethane	EPA 8260B	TE13016	0.40	5.0	ND	1	05/13/07	05/13/07	
Chloroform	EPA 8260B	TE13016	0.33	2.0	ND	1	05/13/07	05/13/07	
Chloromethane	EPA 8260B	TE13016	0.40	5.0	ND	1	05/13/07	05/13/07	
2-Chlorotoluene	EPA 8260B	TE13016	0.28	5.0	ND	1	05/13/07	05/13/07	
4-Chlorotoluene	EPA 8260B	TE13016	0.29	5.0	ND	1	05/13/07	05/13/07	
Dibromochloromethane	EPA 8260B	TE13016	0.28	2.0	ND	1	05/13/07	05/13/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE13016	0.97	5.0	ND	1	05/13/07	05/13/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE13016	0.40	2.0	ND	1	05/13/07	05/13/07	
Dibromomethane	EPA 8260B	TE13016	0.36	2.0	ND	1	05/13/07	05/13/07	
1,2-Dichlorobenzene	EPA 8260B	TE13016	0.32	2.0	ND	1	05/13/07	05/13/07	
1,3-Dichlorobenzene	EPA 8260B	TE13016	0.35	2.0	ND	1	05/13/07	05/13/07	
1,4-Dichlorobenzene	EPA 8260B	TE13016	0.37	2.0	ND	1	05/13/07	05/13/07	
Dichlorodifluoromethane	EPA 8260B	TE13016	0.79	5.0	ND	1	05/13/07	05/13/07	
1,1-Dichloroethane	EPA 8260B	TE13016	0.27	2.0	ND	1	05/13/07	05/13/07	
1,2-Dichloroethane	EPA 8260B	TE13016	0.28	2.0	ND	1	05/13/07	05/13/07	
1,1-Dichloroethene	EPA 8260B	TE13016	0.42	5.0	ND	1	05/13/07	05/13/07	
cis-1,2-Dichloroethene	EPA 8260B	TE13016	0.32	2.0	ND	1	05/13/07	05/13/07	
trans-1,2-Dichloroethene	EPA 8260B	TE13016	0.27	2.0	ND	1	05/13/07	05/13/07	
1,2-Dichloropropane	EPA 8260B	TE13016	0.35	2.0	ND	1	05/13/07	05/13/07	
1,3-Dichloropropane	EPA 8260B	TE13016	0.32	2.0	ND	1	05/13/07	05/13/07	
2,2-Dichloropropane	EPA 8260B	TE13016	0.34	2.0	ND	1	05/13/07	05/13/07	
1,1-Dichloropropene	EPA 8260B	TE13016	0.28	2.0	ND	1	05/13/07	05/13/07	
cis-1,3-Dichloropropene	EPA 8260B	TE13016	0.22	2.0	ND	1	05/13/07	05/13/07	
trans-1,3-Dichloropropene	EPA 8260B	TE13016	0.32	2.0	ND	1	05/13/07	05/13/07	
Ethylbenzene	EPA 8260B	TE13016	0.25	2.0	ND	1	05/13/07	05/13/07	
Hexachlorobutadiene	EPA 8260B	TE13016	0.38	5.0	ND	1	05/13/07	05/13/07	
Isopropylbenzene	EPA 8260B	TE13016	0.25	2.0	ND	1	05/13/07	05/13/07	
p-Isopropyltoluene	EPA 8260B	TE13016	0.28	2.0	ND	1	05/13/07	05/13/07	
Methylene chloride	EPA 8260B	TE13016	0.95	5.0	ND	1	05/13/07	05/13/07	
Naphthalene	EPA 8260B	TE13016	0.41	5.0	ND	1	05/13/07	05/13/07	

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Project Manager

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Attention: Jennifer Wiley

Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-01 (TB051107 - Water) - cont.</b>									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	7E13016	0.27	2.0	ND	1	05/13/07	05/13/07	
Styrene	EPA 8260B	7E13016	0.16	2.0	ND	1	05/13/07	05/13/07	
1,1,2-Tetrachloroethane	EPA 8260B	7E13016	0.27	5.0	ND	1	05/13/07	05/13/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E13016	0.24	2.0	ND	1	05/13/07	05/13/07	
Tetrachloroethene	EPA 8260B	7E13016	0.32	2.0	ND	1	05/13/07	05/13/07	
Toluene	EPA 8260B	7E13016	0.36	2.0	ND	1	05/13/07	05/13/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E13016	0.30	5.0	ND	1	05/13/07	05/13/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E13016	0.48	5.0	ND	1	05/13/07	05/13/07	
1,1,1-Trichloroethane	EPA 8260B	7E13016	0.30	2.0	ND	1	05/13/07	05/13/07	
1,1,2-Trichloroethane	EPA 8260B	7E13016	0.30	2.0	ND	1	05/13/07	05/13/07	
Trichloroethene	EPA 8260B	7E13016	0.26	2.0	ND	1	05/13/07	05/13/07	
Trichlorofluoromethane	EPA 8260B	7E13016	0.34	5.0	ND	1	05/13/07	05/13/07	
1,2,3-Trichloropropane	EPA 8260B	7E13016	0.40	10	ND	1	05/13/07	05/13/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E13016	0.23	2.0	ND	1	05/13/07	05/13/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E13016	0.26	2.0	ND	1	05/13/07	05/13/07	
Vinyl chloride	EPA 8260B	7E13016	0.30	5.0	ND	1	05/13/07	05/13/07	
o-Xylene	EPA 8260B	7E13016	0.30	2.0	ND	1	05/13/07	05/13/07	
m,p-Xylenes	EPA 8260B	7E13016	0.60	2.0	ND	1	05/13/07	05/13/07	
Xylenes, Total	EPA 8260B	7E13016	0.90	4.0	ND	1	05/13/07	05/13/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E13016	0.25	5.0	ND	1	05/13/07	05/13/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E13016	0.28	5.0	ND	1	05/13/07	05/13/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E13016	0.33	5.0	ND	1	05/13/07	05/13/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E13016	0.32	5.0	ND	1	05/13/07	05/13/07	
tert-Butanol (TBA)	EPA 8260B	7E13016	4.9	50	ND	1	05/13/07	05/13/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					95 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					102 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					93 %				

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

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3240 El Camino Real, Suite 200  
Irvine, CA 92602  
Attention: Jennifer Wiley

Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-02 (MW_101_0507 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	TE14014	0.28	2.0	29	1	05/14/07	05/14/07	
Bromobenzene	EPA 8260B	TE14014	0.27	5.0	ND	1	05/14/07	05/14/07	
Bromochloromethane	EPA 8260B	TE14014	0.32	5.0	ND	1	05/14/07	05/14/07	
Bromodichloromethane	EPA 8260B	TE14014	0.30	2.0	ND	1	05/14/07	05/14/07	
Bromoform	EPA 8260B	TE14014	0.40	5.0	ND	1	05/14/07	05/14/07	
Bromomethane	EPA 8260B	TE14014	0.42	5.0	ND	1	05/14/07	05/14/07	
n-Butylbenzene	EPA 8260B	TE14014	0.37	5.0	ND	1	05/14/07	05/14/07	
sec-Butylbenzene	EPA 8260B	TE14014	0.25	5.0	1.2	1	05/14/07	05/14/07	J
tert-Butylbenzene	EPA 8260B	TE14014	0.22	5.0	ND	1	05/14/07	05/14/07	
Carbon tetrachloride	EPA 8260B	TE14014	0.28	5.0	ND	1	05/14/07	05/14/07	
Chlorobenzene	EPA 8260B	TE14014	0.36	2.0	ND	1	05/14/07	05/14/07	
Chloroethane	EPA 8260B	TE14014	0.40	5.0	ND	1	05/14/07	05/14/07	M1
Chloroform	EPA 8260B	TE14014	0.33	2.0	ND	1	05/14/07	05/14/07	
Chloromethane	EPA 8260B	TE14014	0.40	5.0	ND	1	05/14/07	05/14/07	L, M1
2-Chlorotoluene	EPA 8260B	TE14014	0.28	5.0	ND	1	05/14/07	05/14/07	
4-Chlorotoluene	EPA 8260B	TE14014	0.29	5.0	ND	1	05/14/07	05/14/07	
Dibromochloromethane	EPA 8260B	TE14014	0.28	2.0	ND	1	05/14/07	05/14/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE14014	0.97	5.0	ND	1	05/14/07	05/14/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE14014	0.40	2.0	ND	1	05/14/07	05/14/07	
Dibromomethane	EPA 8260B	TE14014	0.36	2.0	ND	1	05/14/07	05/14/07	
1,2-Dichlorobenzene	EPA 8260B	TE14014	0.32	2.0	ND	1	05/14/07	05/14/07	
1,3-Dichlorobenzene	EPA 8260B	TE14014	0.35	2.0	ND	1	05/14/07	05/14/07	
1,4-Dichlorobenzene	EPA 8260B	TE14014	0.37	2.0	ND	1	05/14/07	05/14/07	
Dichlorodifluoromethane	EPA 8260B	TE14014	0.79	5.0	ND	1	05/14/07	05/14/07	
1,1-Dichloroethane	EPA 8260B	TE14014	0.27	2.0	1.5	1	05/14/07	05/14/07	J
1,2-Dichloroethane	EPA 8260B	TE14014	0.28	2.0	0.39	1	05/14/07	05/14/07	J
1,1-Dichloroethene	EPA 8260B	TE14014	0.42	5.0	9.2	1	05/14/07	05/14/07	
cis-1,2-Dichloroethene	EPA 8260B	TE14014	0.32	2.0	26	1	05/14/07	05/14/07	
trans-1,2-Dichloroethene	EPA 8260B	TE14014	0.27	2.0	2.6	1	05/14/07	05/14/07	
1,2-Dichloropropane	EPA 8260B	TE14014	0.35	2.0	ND	1	05/14/07	05/14/07	
1,3-Dichloropropane	EPA 8260B	TE14014	0.32	2.0	ND	1	05/14/07	05/14/07	
2,2-Dichloropropane	EPA 8260B	TE14014	0.34	2.0	ND	1	05/14/07	05/14/07	
1,1-Dichloropropene	EPA 8260B	TE14014	0.28	2.0	ND	1	05/14/07	05/14/07	
cis-1,3-Dichloropropene	EPA 8260B	TE14014	0.22	2.0	ND	1	05/14/07	05/14/07	
trans-1,3-Dichloropropene	EPA 8260B	TE14014	0.32	2.0	ND	1	05/14/07	05/14/07	
Ethylbenzene	EPA 8260B	TE14014	0.25	2.0	1.0	1	05/14/07	05/14/07	J
Hexachlorobutadiene	EPA 8260B	TE14014	0.38	5.0	ND	1	05/14/07	05/14/07	
Isopropylbenzene	EPA 8260B	TE14014	0.25	2.0	1.4	1	05/14/07	05/14/07	J
p-Isopropyltoluene	EPA 8260B	TE14014	0.28	2.0	ND	1	05/14/07	05/14/07	
Methylene chloride	EPA 8260B	TE14014	0.95	5.0	ND	1	05/14/07	05/14/07	
Naphthalene	EPA 8260B	TE14014	0.41	5.0	0.76	1	05/14/07	05/14/07	J

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

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Irvine, CA 92602  
Attention: Jennifer Wiley

Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-02 (MW_101_0507 - Water) - cont.</b>									
<b>Reporting Units: ug/l</b>									
<b>n-Propylbenzene</b>	EPA 8260B	7E14014	0.27	2.0	<b>0.46</b>	1	05/14/07	05/14/07	J
Styrene	EPA 8260B	7E14014	0.16	2.0	ND	1	05/14/07	05/14/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E14014	0.27	5.0	ND	1	05/14/07	05/14/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E14014	0.24	2.0	ND	1	05/14/07	05/14/07	
<b>Tetrachloroethene</b>	EPA 8260B	7E14014	0.32	2.0	<b>0.37</b>	1	05/14/07	05/14/07	J
Toluene	EPA 8260B	7E14014	0.36	2.0	<b>0.47</b>	1	05/14/07	05/14/07	J
1,2,3-Trichlorobenzene	EPA 8260B	7E14014	0.30	5.0	ND	1	05/14/07	05/14/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E14014	0.48	5.0	ND	1	05/14/07	05/14/07	
1,1,1-Trichloroethane	EPA 8260B	7E14014	0.30	2.0	ND	1	05/14/07	05/14/07	
1,1,2-Trichloroethane	EPA 8260B	7E14014	0.30	2.0	ND	1	05/14/07	05/14/07	
<b>Trichloroethene</b>	EPA 8260B	7E14014	0.26	2.0	<b>37</b>	1	05/14/07	05/14/07	
Trichlorofluoromethane	EPA 8260B	7E14014	0.34	5.0	ND	1	05/14/07	05/14/07	
1,2,3-Trichloropropane	EPA 8260B	7E14014	0.40	10	ND	1	05/14/07	05/14/07	
1,2,4-Trimethylbenzeoe	EPA 8260B	7E14014	0.23	2.0	ND	1	05/14/07	05/14/07	
1,3,5-Trimethylbenzeoe	EPA 8260B	7E14014	0.26	2.0	ND	1	05/14/07	05/14/07	
<b>Vinyl chloride</b>	EPA 8260B	7E14014	0.30	5.0	<b>0.82</b>	1	05/14/07	05/14/07	J
o-Xylene	EPA 8260B	7E14014	0.30	2.0	ND	1	05/14/07	05/14/07	
m,p-Xylenes	EPA 8260B	7E14014	0.60	2.0	ND	1	05/14/07	05/14/07	
Xylenes, Total	EPA 8260B	7E14014	0.90	4.0	ND	1	05/14/07	05/14/07	
<b>Di-isopropyl Ether (DIPE)</b>	EPA 8260B	7E14014	0.25	5.0	<b>0.30</b>	1	05/14/07	05/14/07	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E14014	0.28	5.0	ND	1	05/14/07	05/14/07	
tert-Anyl Methyl Ether (TAME)	EPA 8260B	7E14014	0.33	5.0	ND	1	05/14/07	05/14/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E14014	0.32	5.0	ND	1	05/14/07	05/14/07	
tert-Butanol (TBA)	EPA 8260B	7E14014	4.9	50	ND	1	05/14/07	05/14/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							98 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							103 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							97 %		

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Sushmitha Reddy  
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Attention: Jennifer Wiley

Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-03 (W_10_0507 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	TE14014	0.56	4.0	430	2	05/14/07	05/14/07	
Bromobenzene	EPA 8260B	TE14014	0.54	10	ND	2	05/14/07	05/14/07	
Bromochloromethane	EPA 8260B	TE14014	0.64	10	ND	2	05/14/07	05/14/07	
Bromodichloromethane	EPA 8260B	TE14014	0.60	4.0	ND	2	05/14/07	05/14/07	
Bromoform	EPA 8260B	TE14014	0.80	10	ND	2	05/14/07	05/14/07	
Bromomethane	EPA 8260B	TE14014	0.84	10	ND	2	05/14/07	05/14/07	
<b>n-Butylbenzene</b>	EPA 8260B	TE14014	0.74	10	<b>8.4</b>	2	05/14/07	05/14/07	J
<b>sec-Butylbenzene</b>	EPA 8260B	TE14014	0.50	10	<b>5.4</b>	2	05/14/07	05/14/07	J
<b>tert-Butylbenzene</b>	EPA 8260B	TE14014	0.44	10	<b>0.68</b>	2	05/14/07	05/14/07	J
Carbon tetrachloride	EPA 8260B	TE14014	0.56	10	ND	2	05/14/07	05/14/07	
Chlorobenzene	EPA 8260B	TE14014	0.72	4.0	ND	2	05/14/07	05/14/07	
<b>Chloroethane</b>	EPA 8260B	TE14014	0.80	10	<b>2.0</b>	2	05/14/07	05/14/07	J
Chloroform	EPA 8260B	TE14014	0.66	4.0	ND	2	05/14/07	05/14/07	
Chloromethane	EPA 8260B	TE14014	0.80	10	ND	2	05/14/07	05/14/07	L
2-Chlorotoluene	EPA 8260B	TE14014	0.56	10	ND	2	05/14/07	05/14/07	
4-Chlorotoluene	EPA 8260B	TE14014	0.58	10	ND	2	05/14/07	05/14/07	
Dibromochloromethane	EPA 8260B	TE14014	0.56	4.0	ND	2	05/14/07	05/14/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE14014	1.9	10	ND	2	05/14/07	05/14/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE14014	0.80	4.0	ND	2	05/14/07	05/14/07	
Dibromomethane	EPA 8260B	TE14014	0.72	4.0	ND	2	05/14/07	05/14/07	
1,2-Dichlorobenzene	EPA 8260B	TE14014	0.64	4.0	ND	2	05/14/07	05/14/07	
1,3-Dichlorobenzene	EPA 8260B	TE14014	0.70	4.0	ND	2	05/14/07	05/14/07	
1,4-Dichlorobenzene	EPA 8260B	TE14014	0.74	4.0	ND	2	05/14/07	05/14/07	
Dichlorodifluoromethane	EPA 8260B	TE14014	1.6	10	ND	2	05/14/07	05/14/07	
<b>1,1-Dichloroethane</b>	EPA 8260B	TE14014	0.54	4.0	<b>8.2</b>	2	05/14/07	05/14/07	
<b>1,2-Dichloroethane</b>	EPA 8260B	TE14014	0.56	4.0	<b>1.2</b>	2	05/14/07	05/14/07	J
1,1-Dichloroethene	EPA 8260B	TE14014	0.84	10	ND	2	05/14/07	05/14/07	
<b>cis-1,2-Dichloroethene</b>	EPA 8260B	TE14014	0.64	4.0	<b>6.0</b>	2	05/14/07	05/14/07	
trans-1,2-Dichloroethene	EPA 8260B	TE14014	0.54	4.0	ND	2	05/14/07	05/14/07	
<b>1,2-Dichloropropane</b>	EPA 8260B	TE14014	0.70	4.0	<b>18</b>	2	05/14/07	05/14/07	
1,3-Dichloropropane	EPA 8260B	TE14014	0.64	4.0	ND	2	05/14/07	05/14/07	
2,2-Dichloropropane	EPA 8260B	TE14014	0.68	4.0	ND	2	05/14/07	05/14/07	
1,1-Dichloropropene	EPA 8260B	TE14014	0.56	4.0	ND	2	05/14/07	05/14/07	
cis-1,3-Dichloropropene	EPA 8260B	TE14014	0.44	4.0	ND	2	05/14/07	05/14/07	
trans-1,3-Dichloropropene	EPA 8260B	TE14014	0.64	4.0	ND	2	05/14/07	05/14/07	
Ethylbenzene	EPA 8260B	TE14014	0.50	4.0	<b>100</b>	2	05/14/07	05/14/07	
Hexachlorobutadiene	EPA 8260B	TE14014	0.76	10	ND	2	05/14/07	05/14/07	
<b>Isopropylbenzene</b>	EPA 8260B	TE14014	0.50	4.0	<b>19</b>	2	05/14/07	05/14/07	
<b>p-Isopropyltoluene</b>	EPA 8260B	TE14014	0.56	4.0	<b>4.6</b>	2	05/14/07	05/14/07	
Methylene chloride	EPA 8260B	TE14014	1.9	10	ND	2	05/14/07	05/14/07	
Naphthalene	EPA 8260B	TE14014	0.82	10	<b>100</b>	2	05/14/07	05/14/07	

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Project ID: Former Cenex Refinery - 2006  
 54205.001  
 Report Number: IQE1328

Sampled: 05/11/07  
 Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-03 (W_10_0507 - Water) - cont.</b>									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	7E14014	0.54	4.0	30	2	05/14/07	05/14/07	
Styrene	EPA 8260B	7E14014	0.32	4.0	ND	2	05/14/07	05/14/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E14014	0.54	10	ND	2	05/14/07	05/14/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E14014	0.48	4.0	ND	2	05/14/07	05/14/07	
Tetrachloroethene	EPA 8260B	7E14014	0.64	4.0	ND	2	05/14/07	05/14/07	
Toluene	EPA 8260B	7E14014	0.72	4.0	140	2	05/14/07	05/14/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E14014	0.60	10	ND	2	05/14/07	05/14/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E14014	0.96	10	ND	2	05/14/07	05/14/07	
1,1,1-Trichloroethane	EPA 8260B	7E14014	0.60	4.0	ND	2	05/14/07	05/14/07	
1,1,2-Trichloroethane	EPA 8260B	7E14014	0.60	4.0	ND	2	05/14/07	05/14/07	
Trichloroethene	EPA 8260B	7E14014	0.52	4.0	ND	2	05/14/07	05/14/07	
Trichlorofluoromethane	EPA 8260B	7E14014	0.68	10	ND	2	05/14/07	05/14/07	
1,2,3-Trichloropropane	EPA 8260B	7E14014	0.80	20	ND	2	05/14/07	05/14/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E14014	0.46	4.0	130	2	05/14/07	05/14/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E14014	0.52	4.0	48	2	05/14/07	05/14/07	J
Vinyl chloride	EPA 8260B	7E14014	0.60	10	3.6	2	05/14/07	05/14/07	
o-Xylene	EPA 8260B	7E14014	0.60	4.0	130	2	05/14/07	05/14/07	
m,p-Xylenes	EPA 8260B	7E14014	1.2	4.0	480	2	05/14/07	05/14/07	
Xylenes, Total	EPA 8260B	7E14014	1.8	8.0	610	2	05/14/07	05/14/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E14014	0.50	10	ND	2	05/14/07	05/14/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E14014	0.56	10	ND	2	05/14/07	05/14/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E14014	0.66	10	ND	2	05/14/07	05/14/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E14014	0.64	10	ND	2	05/14/07	05/14/07	
tert-Butanol (TBA)	EPA 8260B	7E14014	9.8	100	84	2	05/14/07	05/14/07	J
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							97 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							102 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							91 %		

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-04 (W_10_0507D - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	TE14014	1.4	10	500	5	05/14/07	05/14/07	
Bromobenzene	EPA 8260B	TE14014	1.4	25	ND	5	05/14/07	05/14/07	
Bromoform	EPA 8260B	TE14014	1.6	25	ND	5	05/14/07	05/14/07	
Bromochloromethane	EPA 8260B	TE14014	1.5	10	ND	5	05/14/07	05/14/07	
Bromodichloromethane	EPA 8260B	TE14014	2.0	25	ND	5	05/14/07	05/14/07	
Bromoform	EPA 8260B	TE14014	2.1	25	ND	5	05/14/07	05/14/07	
Bromomethane	EPA 8260B	TE14014	1.8	25	ND	5	05/14/07	05/14/07	
n-Butylbenzene	EPA 8260B	TE14014	1.8	25	ND	5	05/14/07	05/14/07	
sec-Butylbenzene	EPA 8260B	TE14014	1.2	25	5.8	5	05/14/07	05/14/07	J
tert-Butylbenzene	EPA 8260B	TE14014	1.1	25	ND	5	05/14/07	05/14/07	
Carbon tetrachloride	EPA 8260B	TE14014	1.4	25	ND	5	05/14/07	05/14/07	
Chlorobenzene	EPA 8260B	TE14014	1.8	10	ND	5	05/14/07	05/14/07	
Chloroethane	EPA 8260B	TE14014	2.0	25	ND	5	05/14/07	05/14/07	
Chloroform	EPA 8260B	TE14014	1.6	10	ND	5	05/14/07	05/14/07	
Chloromethane	EPA 8260B	TE14014	2.0	25	ND	5	05/14/07	05/14/07	L
2-Chlorotoluene	EPA 8260B	TE14014	1.4	25	ND	5	05/14/07	05/14/07	
4-Chlorotoluene	EPA 8260B	TE14014	1.4	25	ND	5	05/14/07	05/14/07	
Dibromochloromethane	EPA 8260B	TE14014	1.4	10	ND	5	05/14/07	05/14/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE14014	4.8	25	ND	5	05/14/07	05/14/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE14014	2.0	10	ND	5	05/14/07	05/14/07	
Dibromomethane	EPA 8260B	TE14014	1.8	10	ND	5	05/14/07	05/14/07	
1,2-Dichlorobenzene	EPA 8260B	TE14014	1.6	10	ND	5	05/14/07	05/14/07	
1,3-Dichlorobenzene	EPA 8260B	TE14014	1.8	10	ND	5	05/14/07	05/14/07	
1,4-Dichlorobenzene	EPA 8260B	TE14014	1.8	10	ND	5	05/14/07	05/14/07	
Dichlorodifluoromethane	EPA 8260B	TE14014	4.0	25	ND	5	05/14/07	05/14/07	
1,1-Dichloroethane	EPA 8260B	TE14014	1.4	10	8.8	5	05/14/07	05/14/07	J
1,2-Dichloroethane	EPA 8260B	TE14014	1.4	10	1.4	5	05/14/07	05/14/07	J
1,1-Dichloroethene	EPA 8260B	TE14014	2.1	25	ND	5	05/14/07	05/14/07	
cis-1,2-Dichloroethene	EPA 8260B	TE14014	1.6	10	6.6	5	05/14/07	05/14/07	J
trans-1,2-Dichloroethene	EPA 8260B	TE14014	1.4	10	ND	5	05/14/07	05/14/07	
1,2-Dichloropropane	EPA 8260B	TE14014	1.8	10	20	5	05/14/07	05/14/07	
1,3-Dichloropropane	EPA 8260B	TE14014	1.6	10	ND	5	05/14/07	05/14/07	
2,2-Dichloropropane	EPA 8260B	TE14014	1.7	10	ND	5	05/14/07	05/14/07	
1,1-Dichloropropene	EPA 8260B	TE14014	1.4	10	ND	5	05/14/07	05/14/07	
cis-1,3-Dichloropropene	EPA 8260B	TE14014	1.1	10	ND	5	05/14/07	05/14/07	
trans-1,3-Dichloropropene	EPA 8260B	TE14014	1.6	10	ND	5	05/14/07	05/14/07	
Ethylbenzene	EPA 8260B	TE14014	1.2	10	110	5	05/14/07	05/14/07	
Hexachlorobutadiene	EPA 8260B	TE14014	1.9	25	ND	5	05/14/07	05/14/07	
Isopropylbenzene	EPA 8260B	TE14014	1.2	10	21	5	05/14/07	05/14/07	
p-Isopropyltoluene	EPA 8260B	TE14014	1.4	10	5.0	5	05/14/07	05/14/07	J
Methylene chloride	EPA 8260B	TE14014	4.8	25	ND	5	05/14/07	05/14/07	
Naphthalene	EPA 8260B	TE14014	2.0	25	150	5	05/14/07	05/14/07	

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Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-04 (W_10_0507D - Water) - cont.</b>									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	7E14014	1.4	10	33	5	05/14/07	05/14/07	
Styrene	EPA 8260B	7E14014	0.80	10	ND	5	05/14/07	05/14/07	
1,1,2-Tetrachloroethane	EPA 8260B	7E14014	1.4	25	ND	5	05/14/07	05/14/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E14014	1.2	10	ND	5	05/14/07	05/14/07	
Tetrachloroethene	EPA 8260B	7E14014	1.6	10	ND	5	05/14/07	05/14/07	
Toluene	EPA 8260B	7E14014	1.8	10	160	5	05/14/07	05/14/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E14014	1.5	25	ND	5	05/14/07	05/14/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E14014	2.4	25	ND	5	05/14/07	05/14/07	
1,1,1-Trichloroethane	EPA 8260B	7E14014	1.5	10	ND	5	05/14/07	05/14/07	
1,1,2-Trichloroethane	EPA 8260B	7E14014	1.5	10	ND	5	05/14/07	05/14/07	
Trichloroethene	EPA 8260B	7E14014	1.3	10	ND	5	05/14/07	05/14/07	
Trichlorofluoromethane	EPA 8260B	7E14014	1.7	25	ND	5	05/14/07	05/14/07	
1,2,3-Trichloropropane	EPA 8260B	7E14014	2.0	50	ND	5	05/14/07	05/14/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E14014	1.2	10	150	5	05/14/07	05/14/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E14014	1.3	10	53	5	05/14/07	05/14/07	
Vinyl chloride	EPA 8260B	7E14014	1.5	25	3.9	5	05/14/07	05/14/07	J
o-Xylene	EPA 8260B	7E14014	1.5	10	150	5	05/14/07	05/14/07	
m,p-Xylenes	EPA 8260B	7E14014	3.0	10	540	5	05/14/07	05/14/07	
Xylenes, Total	EPA 8260B	7E14014	4.5	20	700	5	05/14/07	05/14/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E14014	1.2	25	ND	5	05/14/07	05/14/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E14014	1.4	25	ND	5	05/14/07	05/14/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E14014	1.6	25	ND	5	05/14/07	05/14/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E14014	1.6	25	ND	5	05/14/07	05/14/07	
tert-Butanol (TBA)	EPA 8260B	7E14014	24	250	85	5	05/14/07	05/14/07	J
Surrogate: Dibromoiodomethane (80-120%)							102 %		
Surrogate: Toluene-d8 (80-120%)							104 %		
Surrogate: 4-Bromofluorobenzene (80-120%)							94 %		

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

Arcadis - Blasland, Bouck & Lee  
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Attention: Jennifer Wiley

Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-05 (MW_504_0507 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	TE14014	5.6	40	1500	20	05/14/07	05/14/07	
Bromobenzene	EPA 8260B	TE14014	5.4	100	ND	20	05/14/07	05/14/07	
Bromochloromethane	EPA 8260B	TE14014	6.4	100	ND	20	05/14/07	05/14/07	
Bromodichloromethane	EPA 8260B	TE14014	6.0	40	ND	20	05/14/07	05/14/07	
Bromoform	EPA 8260B	TE14014	8.0	100	ND	20	05/14/07	05/14/07	
Bromomethane	EPA 8260B	TE14014	8.4	100	ND	20	05/14/07	05/14/07	
n-Butylbenzene	EPA 8260B	TE14014	7.4	100	ND	20	05/14/07	05/14/07	
sec-Butylbenzene	EPA 8260B	TE14014	5.0	100	10	20	05/14/07	05/14/07	J
tert-Butylbenzene	EPA 8260B	TE14014	4.4	100	ND	20	05/14/07	05/14/07	
Carbon tetrachloride	EPA 8260B	TE14014	5.6	100	ND	20	05/14/07	05/14/07	
Chlorobenzene	EPA 8260B	TE14014	7.2	40	ND	20	05/14/07	05/14/07	
Chloroethane	EPA 8260B	TE14014	8.0	100	ND	20	05/14/07	05/14/07	
Chloroform	EPA 8260B	TE14014	6.6	40	ND	20	05/14/07	05/14/07	
Chloromethane	EPA 8260B	TE14014	8.0	100	ND	20	05/14/07	05/14/07	L
2-Chlorotoluene	EPA 8260B	TE14014	5.6	100	ND	20	05/14/07	05/14/07	
4-Chlorotoluene	EPA 8260B	TE14014	5.8	100	ND	20	05/14/07	05/14/07	
Dibromochloromethane	EPA 8260B	TE14014	5.6	40	ND	20	05/14/07	05/14/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE14014	19	100	ND	20	05/14/07	05/14/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE14014	8.0	40	ND	20	05/14/07	05/14/07	
Dibromomethane	EPA 8260B	TE14014	7.2	40	ND	20	05/14/07	05/14/07	
1,2-Dichlorobenzene	EPA 8260B	TE14014	6.4	40	ND	20	05/14/07	05/14/07	
1,3-Dichlorobenzene	EPA 8260B	TE14014	7.0	40	ND	20	05/14/07	05/14/07	
1,4-Dichlorobenzene	EPA 8260B	TE14014	7.4	40	ND	20	05/14/07	05/14/07	
Dichlorodifluoromethane	EPA 8260B	TE14014	16	100	ND	20	05/14/07	05/14/07	
1,1-Dichloroethane	EPA 8260B	TE14014	5.4	40	ND	20	05/14/07	05/14/07	
1,2-Dichloroethane	EPA 8260B	TE14014	5.6	40	ND	20	05/14/07	05/14/07	
1,1-Dichloroethene	EPA 8260B	TE14014	8.4	100	ND	20	05/14/07	05/14/07	
cis-1,2-Dichloroethene	EPA 8260B	TE14014	6.4	40	ND	20	05/14/07	05/14/07	
trans-1,2-Dichloroethene	EPA 8260B	TE14014	5.4	40	ND	20	05/14/07	05/14/07	
1,2-Dichloropropane	EPA 8260B	TE14014	7.0	40	ND	20	05/14/07	05/14/07	
1,3-Dichloropropane	EPA 8260B	TE14014	6.4	40	ND	20	05/14/07	05/14/07	
2,2-Dichloropropane	EPA 8260B	TE14014	6.8	40	ND	20	05/14/07	05/14/07	
1,1-Dichloropropene	EPA 8260B	TE14014	5.6	40	ND	20	05/14/07	05/14/07	
cis-1,3-Dichloropropene	EPA 8260B	TE14014	4.4	40	ND	20	05/14/07	05/14/07	
trans-1,3-Dichloropropene	EPA 8260B	TE14014	6.4	40	ND	20	05/14/07	05/14/07	
Ethylbenzene	EPA 8260B	TE14014	5.0	40	230	20	05/14/07	05/14/07	
Hexachlorobutadiene	EPA 8260B	TE14014	7.6	100	ND	20	05/14/07	05/14/07	
Isopropylbenzene	EPA 8260B	TE14014	5.0	40	66	20	05/14/07	05/14/07	
p-Isopropyltoluene	EPA 8260B	TE14014	5.6	40	18	20	05/14/07	05/14/07	J
Methylene chloride	EPA 8260B	TE14014	19	100	ND	20	05/14/07	05/14/07	
Naphthalene	EPA 8260B	TE14014	8.2	100	80	20	05/14/07	05/14/07	J

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Date Qualifiers
<b>Sample ID: IQE1328-05 (MW_504_0507 - Water) - cont.</b>									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	7E14014	5.4	40	59	20	05/14/07	05/14/07	
Styrene	EPA 8260B	7E14014	3.2	40	ND	20	05/14/07	05/14/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E14014	5.4	100	ND	20	05/14/07	05/14/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E14014	4.8	40	ND	20	05/14/07	05/14/07	
Tetrachloroethene	EPA 8260B	7E14014	6.4	40	ND	20	05/14/07	05/14/07	
Toluene	EPA 8260B	7E14014	7.2	40	7.2	20	05/14/07	05/14/07	J
1,2,3-Trichlorobenzene	EPA 8260B	7E14014	6.0	100	ND	20	05/14/07	05/14/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E14014	9.6	100	ND	20	05/14/07	05/14/07	
1,1,1-Trichloroethane	EPA 8260B	7E14014	6.0	40	ND	20	05/14/07	05/14/07	
1,1,2-Trichloroethane	EPA 8260B	7E14014	6.0	40	ND	20	05/14/07	05/14/07	
Trichloroethene	EPA 8260B	7E14014	5.2	40	ND	20	05/14/07	05/14/07	
Trichlorofluoromethane	EPA 8260B	7E14014	6.8	100	ND	20	05/14/07	05/14/07	
1,2,3-Trichloropropane	EPA 8260B	7E14014	8.0	200	ND	20	05/14/07	05/14/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E14014	4.6	40	130	20	05/14/07	05/14/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E14014	5.2	40	110	20	05/14/07	05/14/07	
Vinyl chloride	EPA 8260B	7E14014	6.0	100	ND	20	05/14/07	05/14/07	
o-Xylene	EPA 8260B	7E14014	6.0	40	11	20	05/14/07	05/14/07	J
m,p-Xylenes	EPA 8260B	7E14014	12	40	390	20	05/14/07	05/14/07	
Xylenes, Total	EPA 8260B	7E14014	18	80	400	20	05/14/07	05/14/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E14014	5.0	100	ND	20	05/14/07	05/14/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E14014	5.6	100	ND	20	05/14/07	05/14/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E14014	6.6	100	ND	20	05/14/07	05/14/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E14014	6.4	100	ND	20	05/14/07	05/14/07	
tert-Butanol (TBA)	EPA 8260B	7E14014	98	1000	ND	20	05/14/07	05/14/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							101 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							101 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							91 %		

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-06 (MW_503B_0507 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	TE14014	0.28	2.0	60	1	05/14/07	05/14/07	
Bromobenzene	EPA 8260B	TE14014	0.27	5.0	ND	1	05/14/07	05/14/07	
Bromochloromethane	EPA 8260B	TE14014	0.32	5.0	ND	1	05/14/07	05/14/07	
Bromodichloromethane	EPA 8260B	TE14014	0.30	2.0	ND	1	05/14/07	05/14/07	
Bromoform	EPA 8260B	TE14014	0.40	5.0	ND	1	05/14/07	05/14/07	
Bromomethane	EPA 8260B	TE14014	0.42	5.0	ND	1	05/14/07	05/14/07	
n-Butylbenzene	EPA 8260B	TE14014	0.37	5.0	ND	1	05/14/07	05/14/07	
sec-Butylbenzene	EPA 8260B	TE14014	0.25	5.0	18	1	05/14/07	05/14/07	
tert-Butylbenzene	EPA 8260B	TE14014	0.22	5.0	2.2	1	05/14/07	05/14/07	J
Carbon tetrachloride	EPA 8260B	TE14014	0.28	5.0	ND	1	05/14/07	05/14/07	
Chlorobenzene	EPA 8260B	TE14014	0.36	2.0	ND	1	05/14/07	05/14/07	
Chloroethane	EPA 8260B	TE14014	0.40	5.0	ND	1	05/14/07	05/14/07	
Chloroform	EPA 8260B	TE14014	0.33	2.0	ND	1	05/14/07	05/14/07	
Chloromethane	EPA 8260B	TE14014	0.40	5.0	ND	1	05/14/07	05/14/07	L
2-Chlorotoluene	EPA 8260B	TE14014	0.28	5.0	ND	1	05/14/07	05/14/07	
4-Chlorotoluene	EPA 8260B	TE14014	0.29	5.0	ND	1	05/14/07	05/14/07	
Dibromochloromethane	EPA 8260B	TE14014	0.28	2.0	ND	1	05/14/07	05/14/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	TE14014	0.97	5.0	ND	1	05/14/07	05/14/07	
1,2-Dibromoethane (EDB)	EPA 8260B	TE14014	0.40	2.0	ND	1	05/14/07	05/14/07	
Dibromomethane	EPA 8260B	TE14014	0.36	2.0	ND	1	05/14/07	05/14/07	
1,2-Dichlorobenzene	EPA 8260B	TE14014	0.32	2.0	ND	1	05/14/07	05/14/07	
1,3-Dichlorobenzene	EPA 8260B	TE14014	0.35	2.0	ND	1	05/14/07	05/14/07	
1,4-Dichlorobenzene	EPA 8260B	TE14014	0.37	2.0	ND	1	05/14/07	05/14/07	
Dichlorodifluoromethane	EPA 8260B	TE14014	0.79	5.0	ND	1	05/14/07	05/14/07	
1,1-Dichloroethane	EPA 8260B	TE14014	0.27	2.0	0.63	1	05/14/07	05/14/07	J
1,2-Dichloroethane	EPA 8260B	TE14014	0.28	2.0	0.47	1	05/14/07	05/14/07	J
1,1-Dichloroethene	EPA 8260B	TE14014	0.42	5.0	0.87	1	05/14/07	05/14/07	J
cis-1,2-Dichloroethene	EPA 8260B	TE14014	0.32	2.0	17	1	05/14/07	05/14/07	
trans-1,2-Dichloroethene	EPA 8260B	TE14014	0.27	2.0	2.6	1	05/14/07	05/14/07	
1,2-Dichloropropane	EPA 8260B	TE14014	0.35	2.0	ND	1	05/14/07	05/14/07	
1,3-Dichloropropane	EPA 8260B	TE14014	0.32	2.0	ND	1	05/14/07	05/14/07	
2,2-Dichloropropane	EPA 8260B	TE14014	0.34	2.0	ND	1	05/14/07	05/14/07	
1,1-Dichloropropene	EPA 8260B	TE14014	0.28	2.0	ND	1	05/14/07	05/14/07	
cis-1,3-Dichloropropene	EPA 8260B	TE14014	0.22	2.0	ND	1	05/14/07	05/14/07	
trans-1,3-Dichloropropene	EPA 8260B	TE14014	0.32	2.0	ND	1	05/14/07	05/14/07	
Ethylbenzene	EPA 8260B	TE14014	0.25	2.0	2.1	1	05/14/07	05/14/07	
Hexachlorobutadiene	EPA 8260B	TE14014	0.38	5.0	ND	1	05/14/07	05/14/07	
Isopropylbenzene	EPA 8260B	TE14014	0.25	2.0	40	1	05/14/07	05/14/07	
p-Isopropyltoluene	EPA 8260B	TE14014	0.28	2.0	ND	1	05/14/07	05/14/07	
Methylene chloride	EPA 8260B	TE14014	0.95	5.0	ND	1	05/14/07	05/14/07	
Naphthalene	EPA 8260B	TE14014	0.41	5.0	1.5	1	05/14/07	05/14/07	J

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Project ID: Former Cenoco Refinery - 2006  
 54205.001  
 Report Number: IQE1328

Sampled: 05/11/07  
 Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-06 (MW_503B_0507 - Water) - cont.</b>									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	7E14014	0.27	2.0	27	1	05/14/07	05/14/07	
Styrene	EPA 8260B	7E14014	0.16	2.0	ND	1	05/14/07	05/14/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E14014	0.27	5.0	ND	1	05/14/07	05/14/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E14014	0.24	2.0	ND	1	05/14/07	05/14/07	
Tetrachloroethene	EPA 8260B	7E14014	0.32	2.0	ND	1	05/14/07	05/14/07	
Toluene	EPA 8260B	7E14014	0.36	2.0	0.58	1	05/14/07	05/14/07	J
1,2,3-Trichlorobenzoic	EPA 8260B	7E14014	0.30	5.0	ND	1	05/14/07	05/14/07	
1,2,4-Trichlorobenzoic	EPA 8260B	7E14014	0.48	5.0	ND	1	05/14/07	05/14/07	
1,1,1-Trichloroethane	EPA 8260B	7E14014	0.30	2.0	ND	1	05/14/07	05/14/07	
1,1,2-Trichloroethane	EPA 8260B	7E14014	0.30	2.0	ND	1	05/14/07	05/14/07	
Trichloroethene	EPA 8260B	7E14014	0.26	2.0	ND	1	05/14/07	05/14/07	
Trichlorofluoromethane	EPA 8260B	7E14014	0.34	5.0	ND	1	05/14/07	05/14/07	
1,2,3-Trichloropropane	EPA 8260B	7E14014	0.40	10	ND	1	05/14/07	05/14/07	
1,2,4-Trimethylbenzoic	EPA 8260B	7E14014	0.23	2.0	ND	1	05/14/07	05/14/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E14014	0.26	2.0	0.61	1	05/14/07	05/14/07	J
Vinyl chloride	EPA 8260B	7E14014	0.30	5.0	7.4	1	05/14/07	05/14/07	
o-Xylene	EPA 8260B	7E14014	0.30	2.0	ND	1	05/14/07	05/14/07	
m,p-Xylenes	EPA 8260B	7E14014	0.60	2.0	1.0	1	05/14/07	05/14/07	J
Xylenes, Total	EPA 8260B	7E14014	0.90	4.0	1.3	1	05/14/07	05/14/07	J
Di-isopropyl Ether (DIPE)	EPA 8260B	7E14014	0.25	5.0	ND	1	05/14/07	05/14/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E14014	0.28	5.0	ND	1	05/14/07	05/14/07	
tert-Butyl Methyl Ether (TAME)	EPA 8260B	7E14014	0.33	5.0	ND	1	05/14/07	05/14/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E14014	0.32	5.0	1.3	1	05/14/07	05/14/07	J
tert-Butanol (TBA)	EPA 8260B	7E14014	4.9	50	ND	1	05/14/07	05/14/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							101 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							102 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							93 %		

TestAmerica - Irvine, CA  
 Sushmitha Reddy  
 Project Manager

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-07 (MW_502_0507 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	7E13016	28	200	4000	100	05/13/07	05/13/07	
Bromobenzene	EPA 8260B	7E13016	27	500	ND	100	05/13/07	05/13/07	
Bromochloromethane	EPA 8260B	7E13016	32	500	ND	100	05/13/07	05/13/07	
Bromodichloromethane	EPA 8260B	7E13016	30	200	ND	100	05/13/07	05/13/07	
Bromoform	EPA 8260B	7E13016	40	500	ND	100	05/13/07	05/13/07	
Bromomethane	EPA 8260B	7E13016	42	500	ND	100	05/13/07	05/13/07	
n-Butylbenzene	EPA 8260B	7E13016	37	500	ND	100	05/13/07	05/13/07	
sec-Butylbenzene	EPA 8260B	7E13016	25	500	ND	100	05/13/07	05/13/07	
tert-Butylbenzene	EPA 8260B	7E13016	22	500	ND	100	05/13/07	05/13/07	
Carbon tetrachloride	EPA 8260B	7E13016	28	500	ND	100	05/13/07	05/13/07	
Chlorobenzene	EPA 8260B	7E13016	36	200	ND	100	05/13/07	05/13/07	
Chloroethane	EPA 8260B	7E13016	40	500	ND	100	05/13/07	05/13/07	
Chloroform	EPA 8260B	7E13016	33	200	ND	100	05/13/07	05/13/07	
Chloromethane	EPA 8260B	7E13016	40	500	ND	100	05/13/07	05/13/07	
2-Chlorotoluene	EPA 8260B	7E13016	28	500	ND	100	05/13/07	05/13/07	
4-Chlorotoluene	EPA 8260B	7E13016	29	500	ND	100	05/13/07	05/13/07	
Dibromochloromethane	EPA 8260B	7E13016	28	200	ND	100	05/13/07	05/13/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E13016	97	500	ND	100	05/13/07	05/13/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E13016	40	200	ND	100	05/13/07	05/13/07	
Dibromomethane	EPA 8260B	7E13016	36	200	ND	100	05/13/07	05/13/07	
1,2-Dichlorobenzene	EPA 8260B	7E13016	32	200	ND	100	05/13/07	05/13/07	
1,3-Dichlorobenzene	EPA 8260B	7E13016	35	200	ND	100	05/13/07	05/13/07	
1,4-Dichlorobenzene	EPA 8260B	7E13016	37	200	ND	100	05/13/07	05/13/07	
Dichlorodifluoromethane	EPA 8260B	7E13016	79	500	ND	100	05/13/07	05/13/07	
1,1-Dichloroethane	EPA 8260B	7E13016	27	200	ND	100	05/13/07	05/13/07	
1,2-Dichloroethane	EPA 8260B	7E13016	28	200	ND	100	05/13/07	05/13/07	
1,1-Dichloroethene	EPA 8260B	7E13016	42	500	ND	100	05/13/07	05/13/07	
cis-1,2-Dichloroethene	EPA 8260B	7E13016	32	200	ND	100	05/13/07	05/13/07	
trans-1,2-Dichloroethene	EPA 8260B	7E13016	27	200	ND	100	05/13/07	05/13/07	
1,2-Dichloropropane	EPA 8260B	7E13016	35	200	ND	100	05/13/07	05/13/07	
1,3-Dichloropropane	EPA 8260B	7E13016	32	200	ND	100	05/13/07	05/13/07	
2,2-Dichloropropane	EPA 8260B	7E13016	34	200	ND	100	05/13/07	05/13/07	
1,1-Dichloropropene	EPA 8260B	7E13016	28	200	ND	100	05/13/07	05/13/07	
cis-1,3-Dichloropropene	EPA 8260B	7E13016	22	200	ND	100	05/13/07	05/13/07	
trans-1,3-Dichloropropene	EPA 8260B	7E13016	32	200	ND	100	05/13/07	05/13/07	
Ethylbenzene	EPA 8260B	7E13016	25	200	500	100	05/13/07	05/13/07	
Hexachlorobutadiene	EPA 8260B	7E13016	38	500	ND	100	05/13/07	05/13/07	
Isopropylbenzene	EPA 8260B	7E13016	25	200	63	100	05/13/07	05/13/07	J
p-Isopropyltoluene	EPA 8260B	7E13016	28	200	ND	100	05/13/07	05/13/07	
Methylene chloride	EPA 8260B	7E13016	95	500	ND	100	05/13/07	05/13/07	
Naphthalene	EPA 8260B	7E13016	41	500	170	100	05/13/07	05/13/07	J

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Project ID: Former Cenex Refinery - 2006  
 54205.001  
 Report Number: IQE1328

Sampled: 05/11/07  
 Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-07 (MW_502_0507 - Water) - cont.</b>									
Reporting Units: ug/l									
<b>n-Propylbenzene</b>	EPA 8260B	7E13016	27	200	<b>65</b>	100	05/13/07	05/13/07	J
Styrene	EPA 8260B	7E13016	16	200	ND	100	05/13/07	05/13/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E13016	27	500	ND	100	05/13/07	05/13/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E13016	24	200	ND	100	05/13/07	05/13/07	
Tetrachloroethene	EPA 8260B	7E13016	32	200	ND	100	05/13/07	05/13/07	
<b>Toluene</b>	EPA 8260B	7E13016	36	200	<b>59</b>	100	05/13/07	05/13/07	J
1,2,3-Trichlorobenzene	EPA 8260B	7E13016	30	500	ND	100	05/13/07	05/13/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E13016	48	500	ND	100	05/13/07	05/13/07	
1,1,1-Trichloroethane	EPA 8260B	7E13016	30	200	ND	100	05/13/07	05/13/07	
1,1,2-Trichloroethane	EPA 8260B	7E13016	30	200	ND	100	05/13/07	05/13/07	
Trichloroethene	EPA 8260B	7E13016	26	200	ND	100	05/13/07	05/13/07	
Trichlorofluoromethane	EPA 8260B	7E13016	34	500	ND	100	05/13/07	05/13/07	
1,2,3-Trichloropropane	EPA 8260B	7E13016	40	1000	ND	100	05/13/07	05/13/07	
<b>1,2,4-Trimethylbenzene</b>	EPA 8260B	7E13016	23	200	<b>400</b>	100	05/13/07	05/13/07	
<b>1,3,5-Trimethylbenzene</b>	EPA 8260B	7E13016	26	200	<b>250</b>	100	05/13/07	05/13/07	
Vinyl chloride	EPA 8260B	7E13016	30	500	ND	100	05/13/07	05/13/07	
o-Xylene	EPA 8260B	7E13016	30	200	ND	100	05/13/07	05/13/07	
<b>m,p-Xylenes</b>	EPA 8260B	7E13016	60	200	<b>720</b>	100	05/13/07	05/13/07	
<b>Xylenes, Total</b>	EPA 8260B	7E13016	90	400	<b>720</b>	100	05/13/07	05/13/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E13016	25	500	ND	100	05/13/07	05/13/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E13016	28	500	ND	100	05/13/07	05/13/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E13016	33	500	ND	100	05/13/07	05/13/07	
<b>Methyl-tert-butyl Ether (MTBE)</b>	EPA 8260B	7E13016	32	500	<b>29000</b>	100	05/13/07	05/13/07	
tert-Butanol (TBA)	EPA 8260B	7E13016	490	5000	ND	100	05/13/07	05/13/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							94 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							102 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							95 %		

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Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-08 (MW_501A_0507 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 8260B	7E14014	14	100	2000	50	05/14/07	05/14/07	
Bromobenzene	EPA 8260B	7E14014	14	250	ND	50	05/14/07	05/14/07	
Bromochloromethane	EPA 8260B	7E14014	16	250	ND	50	05/14/07	05/14/07	
Bromodichloromethane	EPA 8260B	7E14014	15	100	ND	50	05/14/07	05/14/07	
Bromoform	EPA 8260B	7E14014	20	250	ND	50	05/14/07	05/14/07	
Bromomethane	EPA 8260B	7E14014	21	250	ND	50	05/14/07	05/14/07	
<b>n-Butylbenzene</b>	EPA 8260B	7E14014	18	250	22	50	05/14/07	05/14/07	J
<b>sec-Butylbenzene</b>	EPA 8260B	7E14014	12	250	16	50	05/14/07	05/14/07	J
tert-Butylbenzene	EPA 8260B	7E14014	11	250	ND	50	05/14/07	05/14/07	
Carbon tetrachloride	EPA 8260B	7E14014	14	250	ND	50	05/14/07	05/14/07	
Chlorobenzene	EPA 8260B	7E14014	18	100	ND	50	05/14/07	05/14/07	
Chloroethane	EPA 8260B	7E14014	20	250	ND	50	05/14/07	05/14/07	
Chloroform	EPA 8260B	7E14014	16	100	ND	50	05/14/07	05/14/07	
Chloromethane	EPA 8260B	7E14014	20	250	ND	50	05/14/07	05/14/07	L
2-Chlorotoluene	EPA 8260B	7E14014	14	250	ND	50	05/14/07	05/14/07	
4-Chlorotoluene	EPA 8260B	7E14014	14	250	ND	50	05/14/07	05/14/07	
Dibromochloromethane	EPA 8260B	7E14014	14	100	ND	50	05/14/07	05/14/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7E14014	48	250	ND	50	05/14/07	05/14/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7E14014	20	100	ND	50	05/14/07	05/14/07	
Dibromomethane	EPA 8260B	7E14014	18	100	ND	50	05/14/07	05/14/07	
1,2-Dichlorobenzene	EPA 8260B	7E14014	16	100	ND	50	05/14/07	05/14/07	
1,3-Dichlorobenzene	EPA 8260B	7E14014	18	100	ND	50	05/14/07	05/14/07	
1,4-Dichlorobenzene	EPA 8260B	7E14014	18	100	ND	50	05/14/07	05/14/07	
Dichlorodifluoromethane	EPA 8260B	7E14014	40	250	ND	50	05/14/07	05/14/07	
1,1-Dichloroethane	EPA 8260B	7E14014	14	100	ND	50	05/14/07	05/14/07	
1,2-Dichloroethane	EPA 8260B	7E14014	14	100	ND	50	05/14/07	05/14/07	
1,1-Dichloroethene	EPA 8260B	7E14014	21	250	ND	50	05/14/07	05/14/07	
cis-1,2-Dichloroethene	EPA 8260B	7E14014	16	100	ND	50	05/14/07	05/14/07	
trans-1,2-Dichloroethene	EPA 8260B	7E14014	14	100	ND	50	05/14/07	05/14/07	
1,2-Dichloropropane	EPA 8260B	7E14014	18	100	ND	50	05/14/07	05/14/07	
1,3-Dichloropropane	EPA 8260B	7E14014	16	100	ND	50	05/14/07	05/14/07	
2,2-Dichloropropane	EPA 8260B	7E14014	17	100	ND	50	05/14/07	05/14/07	
1,1-Dichloropropene	EPA 8260B	7E14014	14	100	ND	50	05/14/07	05/14/07	
cis-1,3-Dichloropropene	EPA 8260B	7E14014	11	100	ND	50	05/14/07	05/14/07	
trans-1,3-Dichloropropene	EPA 8260B	7E14014	16	100	ND	50	05/14/07	05/14/07	
Ethylbenzene	EPA 8260B	7E14014	12	100	84	50	05/14/07	05/14/07	J
Hexachlorobutadiene	EPA 8260B	7E14014	19	250	ND	50	05/14/07	05/14/07	
<b>Isopropylbenzene</b>	EPA 8260B	7E14014	12	100	130	50	05/14/07	05/14/07	
p-Isopropyltoluene	EPA 8260B	7E14014	14	100	ND	50	05/14/07	05/14/07	
Methylene chloride	EPA 8260B	7E14014	48	250	ND	50	05/14/07	05/14/07	
Naphthalene	EPA 8260B	7E14014	20	250	ND	50	05/14/07	05/14/07	

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Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-08 (MW_501A_0507 - Water) - cont.</b>									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	7E14014	14	100	250	50	05/14/07	05/14/07	
Styrene	EPA 8260B	7E14014	8.0	100	ND	50	05/14/07	05/14/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7E14014	14	250	ND	50	05/14/07	05/14/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7E14014	12	100	ND	50	05/14/07	05/14/07	
Tetrachloroethene	EPA 8260B	7E14014	16	100	ND	50	05/14/07	05/14/07	
Toluene	EPA 8260B	7E14014	18	100	ND	50	05/14/07	05/14/07	
1,2,3-Trichlorobenzene	EPA 8260B	7E14014	15	250	ND	50	05/14/07	05/14/07	
1,2,4-Trichlorobenzene	EPA 8260B	7E14014	24	250	ND	50	05/14/07	05/14/07	
1,1,1-Trichloroethane	EPA 8260B	7E14014	15	100	ND	50	05/14/07	05/14/07	
1,1,2-Trichloroethane	EPA 8260B	7E14014	15	100	ND	50	05/14/07	05/14/07	
Trichloroethene	EPA 8260B	7E14014	13	100	ND	50	05/14/07	05/14/07	
Trichlorofluoromethane	EPA 8260B	7E14014	17	250	ND	50	05/14/07	05/14/07	
1,2,3-Trichloropropane	EPA 8260B	7E14014	20	500	ND	50	05/14/07	05/14/07	
1,2,4-Trimethylbenzene	EPA 8260B	7E14014	12	100	ND	50	05/14/07	05/14/07	
1,3,5-Trimethylbenzene	EPA 8260B	7E14014	13	100	24	50	05/14/07	05/14/07	J
Vinyl chloride	EPA 8260B	7E14014	15	250	ND	50	05/14/07	05/14/07	
o-Xylene	EPA 8260B	7E14014	15	100	ND	50	05/14/07	05/14/07	
m,p-Xylenes	EPA 8260B	7E14014	30	100	ND	50	05/14/07	05/14/07	
Xylenes, Total	EPA 8260B	7E14014	45	200	ND	50	05/14/07	05/14/07	
Di-isopropyl Ether (DIPE)	EPA 8260B	7E14014	12	250	ND	50	05/14/07	05/14/07	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	7E14014	14	250	ND	50	05/14/07	05/14/07	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	7E14014	16	250	ND	50	05/14/07	05/14/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7E14014	16	250	640	50	05/14/07	05/14/07	
tert-Butanol (TBA)	EPA 8260B	7E14014	240	2500	ND	50	05/14/07	05/14/07	
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							99 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							102 %		
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							89 %		

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Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## DISSOLVED GASES BY HEADSPACE EQUILIBRIUM (RSK-175 MOD.)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-06 (MW_503B_0507 - Water)</b>									
Methane	RSK-175 MOD.	7E22061	0.021	0.050	0.25	1	05/22/07	05/22/07	

Reporting Units: mg/l

Methane

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Sampled: 05/11/07  
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## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQE1328-02 (MW_101_0507 - Water)</b>									
<b>Reporting Units: mg/l</b>									
Chromium VI	EPA 7199	7E11095	0.00020	0.0020	ND	1	05/11/07	05/11/07	
<b>Sample ID: IQE1328-03 (W_10_0507 - Water)</b>									
<b>Reporting Units: mg/l</b>									
Chromium VI	EPA 7199	7E11095	0.00020	0.0020	ND	1	05/11/07	05/11/07	
<b>Sample ID: IQE1328-04 (W_10_0507D - Water)</b>									
<b>Reporting Units: mg/l</b>									
Chromium VI	EPA 7199	7E11095	0.00020	0.0020	ND	1	05/11/07	05/11/07	
<b>Sample ID: IQE1328-05 (MW_504_0507 - Water)</b>									
<b>Reporting Units: mg/l</b>									
Chromium VI	EPA 7199	7E11095	0.00020	0.0020	ND	1	05/11/07	05/11/07	
<b>Sample ID: IQE1328-06 (MW_503B_0507 - Water)</b>									
<b>Reporting Units: mg/l</b>									
Alkalinity as CaCO <sub>3</sub>	SM2320B	7E22074	2.0	2.0	660	1	05/22/07	05/22/07	
Ferrous Iron	SM 3500-Fe D	7E12057	0.10	0.10	0.20	1	05/12/07	05/12/07	HFT
Chromium VI	EPA 7199	7E11095	0.00020	0.0020	ND	1	05/11/07	05/11/07	
Nitrate-N	EPA 300.0	7E11053	0.060	0.11	ND	1	05/11/07	05/12/07	
Sulfate	EPA 300.0	7E11053	4.0	10	170	20	05/11/07	05/12/07	
<b>Sample ID: IQE1328-07 (MW_502_0507 - Water)</b>									
<b>Reporting Units: mg/l</b>									
Chromium VI	EPA 7199	7E11095	0.00020	0.0020	ND	1	05/11/07	05/11/07	
<b>Sample ID: IQE1328-08 (MW_501A_0507 - Water)</b>									
<b>Reporting Units: mg/l</b>									
Chromium VI	EPA 7199	7E11095	0.00020	0.0020	ND	1	05/11/07	05/11/07	

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Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
<b>Sample ID: MW_101_0507 (IQE1328-02) - Water</b>					
EPA 7199	1	05/11/2007 08:10	05/11/2007 18:10	05/11/2007 19:00	05/11/2007 20:09
<b>Sample ID: W_10_0507 (IQE1328-03) - Water</b>					
EPA 7199	1	05/11/2007 09:25	05/11/2007 18:10	05/11/2007 19:00	05/11/2007 20:20
<b>Sample ID: W_10_0507D (IQE1328-04) - Water</b>					
EPA 7199	1	05/11/2007 09:25	05/11/2007 18:10	05/11/2007 19:00	05/11/2007 20:31
<b>Sample ID: MW_504_0507 (IQE1328-05) - Water</b>					
EPA 7199	1	05/11/2007 11:35	05/11/2007 18:10	05/11/2007 19:00	05/11/2007 20:42
<b>Sample ID: MW_503B_0507 (IQE1328-06) - Water</b>					
EPA 300.0	2	05/11/2007 12:40	05/11/2007 18:10	05/11/2007 23:59	05/12/2007 10:06
EPA 7199	1	05/11/2007 12:40	05/11/2007 18:10	05/11/2007 19:00	05/11/2007 20:53
SM 3500-Fe D	1	05/11/2007 12:40	05/11/2007 18:10	05/12/2007 10:45	05/12/2007 11:40
<b>Sample ID: MW_502_0507 (IQE1328-07) - Water</b>					
EPA 7199	1	05/11/2007 13:35	05/11/2007 18:10	05/11/2007 19:00	05/11/2007 21:04
<b>Sample ID: MW_501A_0507 (IQE1328-08) - Water</b>					
EPA 7199	1	05/11/2007 14:20	05/11/2007 18:10	05/11/2007 19:00	05/11/2007 21:55

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## METHOD BLANK/QC DATA

### VOLATILE FUEL HYDROCARBONS (EPA 5030/8015M)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E21044 Extracted: 05/21/07</b>											
<b>Blank Analyzed: 05/21/2007 (7E21044-BLK1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)											
GRO (C4 - C12)	ND	50	30	ug/l							
Surrogate 4-BFB (FID)	9.06			ug/l	10.0		91	65-140			
<b>LCS Analyzed: 05/21/2007 (7E21044-BS1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)											
GRO (C4 - C12)	828	50	30	ug/l	800		104	80-120			
Surrogate 4-BFB (FID)	26.1			ug/l	10.0		261	65-140			ZX
<b>Matrix Spike Analyzed: 05/21/2007 (7E21044-MS1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)											
GRO (C4 - C12)	258	50	30	ug/l	220	ND	117	65-140			
Surrogate 4-BFB (FID)	12.2			ug/l	10.0		122	65-140			
<b>Matrix Spike Dup Analyzed: 05/21/2007 (7E21044-MSD1)</b>											
GRO (C4 - C12) Surrogate 4-BFB (FID)											
GRO (C4 - C12)	254	50	30	ug/l	220	ND	115	65-140	2	20	
Surrogate 4-BFB (FID)	12.5			ug/l	10.0		125	65-140			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E13016 Extracted: 05/13/07</b>											
<b>Blank Analyzed: 05/13/2007 (7E13016-BLK1)</b>											
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromoform	ND	5.0	0.32	ug/l							
Bromochloromethane	ND	2.0	0.30	ug/l							
Bromodichloromethane	ND	5.0	0.40	ug/l							
Bromomethane	ND	5.0	0.42	ug/l							
n-Butylbenzene	ND	5.0	0.37	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
tert-Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.40	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.40	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.97	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.40	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.42	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.32	ug/l							
2,2-Dichloropropane	ND	2.0	0.34	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.32	ug/l							

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Project ID: Former Cenex Refinery - 2006  
54205.001  
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Sampled: 05/11/07  
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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E13016 Extracted: 05/13/07</b>											
<b>Blank Analyzed: 05/13/2007 (7E13016-BLK1)</b>											
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.95	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.27	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.30	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	0.550	2.0	0.26	ug/l							J
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.40	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.30	ug/l							
o-Xylene	ND	2.0	0.30	ug/l							
m,p-Xylenes	ND	2.0	0.60	ug/l							
Xylenes, Total	ND	4.0	0.90	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
tert-Butanol (TBA)	ND	50	4.9	ug/l							
Surrogate Dibromofluoromethane	23.9			ug/l	25.0		96	80-120			
Surrogate Toluene-d8	24.9			ug/l	25.0		100	80-120			
Surrogate 4-Bromofluorobenzene	22.7			ug/l	25.0		91	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E13016 Extracted: 05/13/07</b>											
<b>LCS Analyzed: 05/13/2007 (7E13016-BS1)</b>											
Benzene	24.2	2.0	0.28	ug/l	25.0	97	70-120				
Bromobenzene	23.8	5.0	0.27	ug/l	25.0	95	75-120				
Bromochloromethane	26.1	5.0	0.32	ug/l	25.0	104	70-130				
Bromodichloromethane	24.7	2.0	0.30	ug/l	25.0	99	70-135				
Bromoform	28.2	5.0	0.40	ug/l	25.0	113	55-130				
Bromomethane	26.5	5.0	0.42	ug/l	25.0	106	65-140				
n-Butylbenzene	25.0	5.0	0.37	ug/l	25.0	100	70-130				
sec-Butylbenzene	24.9	5.0	0.25	ug/l	25.0	100	70-125				
tert-Butylbenzene	24.4	5.0	0.22	ug/l	25.0	98	70-125				
Carbon tetrachloride	26.4	5.0	0.28	ug/l	25.0	106	65-140				
Chlorobenzene	23.4	2.0	0.36	ug/l	25.0	94	75-120				
Chloroethane	26.7	5.0	0.40	ug/l	25.0	107	60-140				
Chloroform	25.1	2.0	0.33	ug/l	25.0	100	70-130				
Chloromethane	25.4	5.0	0.40	ug/l	25.0	102	50-140				
2-Chlorotoluene	23.0	5.0	0.28	ug/l	25.0	92	70-125				
4-Chlorotoluene	23.6	5.0	0.29	ug/l	25.0	94	75-125				
Dibromochloromethane	27.0	2.0	0.28	ug/l	25.0	108	70-140				
1,2-Dibromo-3-chloropropane	25.4	5.0	0.97	ug/l	25.0	102	50-135				
1,2-Dibromoethane (EDB)	26.8	2.0	0.40	ug/l	25.0	107	75-125				
Dibromomethane	25.5	2.0	0.36	ug/l	25.0	102	70-125				
1,2-Dichlorobenzene	23.9	2.0	0.32	ug/l	25.0	96	75-120				
1,3-Dichlorobenzene	23.4	2.0	0.35	ug/l	25.0	94	75-120				
1,4-Dichlorobenzene	22.4	2.0	0.37	ug/l	25.0	90	75-120				
Dichlorodifluoromethane	23.5	5.0	0.79	ug/l	25.0	94	35-155				
1,1-Dichloroethane	24.9	2.0	0.27	ug/l	25.0	100	70-125				
1,2-Dichloroethane	23.6	2.0	0.28	ug/l	25.0	94	60-140				
1,1-Dichloroethene	24.8	5.0	0.42	ug/l	25.0	99	70-125				
cis-1,2-Dichloroethene	24.8	2.0	0.32	ug/l	25.0	99	70-125				
trans-1,2-Dichloroethene	25.4	2.0	0.27	ug/l	25.0	102	70-125				
1,2-Dichloropropane	24.5	2.0	0.35	ug/l	25.0	98	70-125				
1,3-Dichloropropane	24.8	2.0	0.32	ug/l	25.0	99	70-120				
2,2-Dichloropropane	18.8	2.0	0.34	ug/l	25.0	75	65-140				
1,1-Dichloropropene	23.9	2.0	0.28	ug/l	25.0	96	75-130				
cis-1,3-Dichloropropene	21.7	2.0	0.22	ug/l	25.0	87	75-125				
trans-1,3-Dichloropropene	17.7	2.0	0.32	ug/l	25.0	71	70-125				

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E13016 Extracted: 05/13/07</b>											
<b>LCS Analyzed: 05/13/2007 (7E13016-BS1)</b>											
Ethylbenzene	25.1	2.0	0.25	ug/l	25.0		100	75-125			
Hexachlorobutadiene	24.4	5.0	0.38	ug/l	25.0		98	65-135			
Isopropylbenzene	26.3	2.0	0.25	ug/l	25.0		105	75-130			
p-Isopropyltoluene	24.2	2.0	0.28	ug/l	25.0		97	75-125			
Meihylene chloride	24.0	5.0	0.95	ug/l	25.0		96	55-130			
Naphthalene	24.5	5.0	0.41	ug/l	25.0		98	55-135			
n-Propylbenzene	24.8	2.0	0.27	ug/l	25.0		99	75-130			
Styrene	25.0	2.0	0.16	ug/l	25.0		100	75-130			
1,1,1,2-Tetrachloroethane	24.4	5.0	0.27	ug/l	25.0		98	70-130			
1,1,2,2-Tetrachloroethane	26.1	2.0	0.24	ug/l	25.0		104	55-130			
Tetrachloroethene	26.4	2.0	0.32	ug/l	25.0		106	70-125			
Toluene	24.4	2.0	0.36	ug/l	25.0		98	70-120			
1,2,3-Trichlorobenzene	23.5	5.0	0.30	ug/l	25.0		94	65-125			
1,2,4-Trichlorobenzene	24.2	5.0	0.48	ug/l	25.0		97	70-135			
1,1,1-Trichloroethane	24.5	2.0	0.30	ug/l	25.0		98	65-135			
1,1,2-Trichloroethane	26.5	2.0	0.30	ug/l	25.0		106	70-125			
Trichloroethene	22.5	2.0	0.26	ug/l	25.0		90	70-125			
Trichlorofluoromethane	24.7	5.0	0.34	ug/l	25.0		99	65-145			
1,2,3-Trichloropropane	25.8	10	0.40	ug/l	25.0		103	60-130			
1,2,4-Trimethylbenzene	24.4	2.0	0.23	ug/l	25.0		98	75-125			
1,3,5-Trimethylbenzene	25.0	2.0	0.26	ug/l	25.0		100	75-125			
Vinyl chloride	24.5	5.0	0.30	ug/l	25.0		98	55-135			
o-Xylene	24.5	2.0	0.30	ug/l	25.0		98	75-125			
m,p-Xylenes	50.3	2.0	0.60	ug/l	50.0		101	75-125			
Xylenes, Total	74.8	4.0	0.90	ug/l	75.0		100	70-125			
Di-isopropyl Ether (DIPE)	25.9	5.0	0.25	ug/l	25.0		104	60-135			
Ethyl tert-Butyl Ether (ETBE)	18.6	5.0	0.28	ug/l	25.0		74	65-135			
tert-Amyl Methyl Ether (TAME)	17.9	5.0	0.33	ug/l	25.0		72	60-135			
Methyl-tert-butyl Ether (MTBE)	21.6	5.0	0.32	ug/l	25.0		86	60-135			
tert-Butanol (TBA)	123	50	4.9	ug/l	125		98	70-135			
Surrogate Dibromofluoromethane	24.0			ug/l	25.0		96	80-120			
Surrogate Toluene-d8	25.0			ug/l	25.0		100	80-120			
Surrogate 4-Bromofluorobenzene	24.3			ug/l	25.0		97	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E13016 Extracted: 05/13/07</b>											
<b>Matrix Spike Analyzed: 05/13/2007 (7E13016-MS1)</b>											
<b>Source: IQE1316-02</b>											
Benzene	53.8	2.0	0.28	ug/l	25.0	33	83	65-125			
Bromobenzene	22.8	5.0	0.27	ug/l	25.0	ND	91	70-125			
Bromochloromethane	25.1	5.0	0.32	ug/l	25.0	ND	100	65-135			
Bromodichloromethane	23.1	2.0	0.30	ug/l	25.0	ND	92	70-135			
Bromoform	24.7	5.0	0.40	ug/l	25.0	ND	99	55-135			
Bromomethane	26.6	5.0	0.42	ug/l	25.0	ND	106	55-145			
n-Butylbenzene	24.4	5.0	0.37	ug/l	25.0	ND	98	65-135			
sec-Butylbenzene	24.2	5.0	0.25	ug/l	25.0	ND	97	70-125			
tert-Butylbenzene	23.3	5.0	0.22	ug/l	25.0	ND	93	65-130			
Carbon tetrachloride	22.3	5.0	0.28	ug/l	25.0	ND	89	65-140			
Chlorobenzene	22.7	2.0	0.36	ug/l	25.0	ND	91	75-125			
Chloroethane	26.2	5.0	0.40	ug/l	25.0	ND	105	55-140			
Chloroform	24.4	2.0	0.33	ug/l	25.0	ND	98	65-135			
Chloromethane	22.5	5.0	0.40	ug/l	25.0	ND	90	45-145			
2-Chlorotoluene	22.9	5.0	0.28	ug/l	25.0	ND	92	65-135			
4-Chlorotoluene	23.4	5.0	0.29	ug/l	25.0	ND	94	70-135			
Dibromochloromethane	23.8	2.0	0.28	ug/l	25.0	ND	95	65-140			
1,2-Dibromo-3-chloropropane	20.3	5.0	0.97	ug/l	25.0	ND	81	45-145			
1,2-Dibromoethane (EDB)	24.4	2.0	0.40	ug/l	25.0	ND	98	70-130			
Dibromomethane	24.8	2.0	0.36	ug/l	25.0	ND	99	65-135			
1,2-Dichlorobenzene	23.2	2.0	0.32	ug/l	25.0	ND	93	75-125			
1,3-Dichlorobenzene	23.2	2.0	0.35	ug/l	25.0	ND	93	75-125			
1,4-Dichlorobenzene	22.3	2.0	0.37	ug/l	25.0	ND	89	75-125			
Dichlorodifluoromethane	19.7	5.0	0.79	ug/l	25.0	ND	79	25-155			
1,1-Dichloroethane	24.6	2.0	0.27	ug/l	25.0	ND	98	65-130			
1,2-Dichloroethane	22.8	2.0	0.28	ug/l	25.0	ND	91	60-140			
1,1-Dichloroethene	24.2	5.0	0.42	ug/l	25.0	ND	97	60-130			
cis-1,2-Dichloroethene	24.4	2.0	0.32	ug/l	25.0	ND	98	65-130			
trans-1,2-Dichloroethene	25.0	2.0	0.27	ug/l	25.0	ND	100	65-130			
1,2-Dichloropropane	24.1	2.0	0.35	ug/l	25.0	ND	96	65-130			
1,3-Dichloropropane	24.1	2.0	0.32	ug/l	25.0	ND	96	65-135			
2,2-Dichloropropane	14.3	2.0	0.34	ug/l	25.0	ND	57	60-145			M2
1,1-Dichloropropene	22.9	2.0	0.28	ug/l	25.0	ND	92	70-135			
cis-1,3-Dichloropropene	18.7	2.0	0.22	ug/l	25.0	ND	75	70-130			
trans-1,3-Dichloropropene	14.8	2.0	0.32	ug/l	25.0	ND	59	65-135			M2

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E13016 Extracted: 05/13/07</b>											
<b>Matrix Spike Analyzed: 05/13/2007 (7E13016-MS1)</b>											
<b>Source: IQE1316-02</b>											
Ethylbenzene	35.9	2.0	0.25	ug/l	25.0	12	96	65-130			
Hexachlorobutadiene	23.2	5.0	0.38	ug/l	25.0	ND	93	60-135			
Isopropylbenzene	25.9	2.0	0.25	ug/l	25.0	0.38	102	70-135			
p-Isopropyltoluene	23.7	2.0	0.28	ug/l	25.0	ND	95	65-130			
Methylene chloride	23.4	5.0	0.95	ug/l	25.0	ND	94	50-135			
Naphthalene	26.1	5.0	0.41	ug/l	25.0	2.6	94	50-140			
n-Propylbenzene	27.1	2.0	0.27	ug/l	25.0	0.86	105	70-135			
Styrene	23.6	2.0	0.16	ug/l	25.0	ND	94	50-145			
1,1,1,2-Tetrachloroethane	21.4	5.0	0.27	ug/l	25.0	ND	86	65-140			
1,1,2,2-Tetrachloroethane	25.8	2.0	0.24	ug/l	25.0	ND	103	55-135			
Tetrachloroethene	24.0	2.0	0.32	ug/l	25.0	ND	96	65-130			
Toluene	37.2	2.0	0.36	ug/l	25.0	14	93	70-125			
1,2,3-Trichlorobenzene	22.0	5.0	0.30	ug/l	25.0	ND	88	60-135			
1,2,4-Trichlorobenzene	23.5	5.0	0.48	ug/l	25.0	ND	94	65-135			
1,1,1-Trichloroethane	21.1	2.0	0.30	ug/l	25.0	ND	84	65-140			
1,1,2-Trichloroethane	26.6	2.0	0.30	ug/l	25.0	ND	106	65-130			
Trichloroethene	21.8	2.0	0.26	ug/l	25.0	ND	87	65-125			
Trichlorofluoromethane	23.9	5.0	0.34	ug/l	25.0	ND	96	60-145			
1,2,3-Trichloropropane	24.3	10	0.40	ug/l	25.0	ND	97	55-135			
1,2,4-Trimethylbenzene	28.4	2.0	0.23	ug/l	25.0	5.4	92	55-135			
1,3,5-Trimethylbenzene	25.2	2.0	0.26	ug/l	25.0	1.2	96	70-130			
Vinyl chloride	24.0	5.0	0.30	ug/l	25.0	ND	96	45-140			
o-Xylene	34.8	2.0	0.30	ug/l	25.0	11	95	65-125			
m,p-Xylenes	69.2	2.0	0.60	ug/l	50.0	21	96	65-130			
Xylenes, Total	104	4.0	0.90	ug/l	75.0	32	96	60-130			
Di-isopropyl Ether (DIPE)	25.4	5.0	0.25	ug/l	25.0	ND	102	60-140			
Ethyl tert-Butyl Ether (ETBE)	16.0	5.0	0.28	ug/l	25.0	ND	64	60-135			
tert-Amyl Methyl Ether (TAME)	15.6	5.0	0.33	ug/l	25.0	ND	62	60-140			
Methyl-tert-butyl Ether (MTBE)	21.3	5.0	0.32	ug/l	25.0	ND	85	55-145			
tert-Butanol (TBA)	126	50	4.9	ug/l	125	ND	101	65-140			
Surrogate Dibromofluoromethane	24.7			ug/l	25.0		99	80-120			
Surrogate Toluene-d8	25.9			ug/l	25.0		104	80-120			
Surrogate 4-Bromofluorobenzene	24.2			ug/l	25.0		97	80-120			

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Project ID: Former Ceneo Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E13016 Extracted: 05/13/07</b>											
<b>Matrix Spike Dup Analyzed: 05/13/2007 (7E13016-MSD1)</b>											
<b>Source: IQE1316-02</b>											
Benzene	55.3	2.0	0.28	ug/l	25.0	33	89	65-125	3	20	
Bromobenzene	24.4	5.0	0.27	ug/l	25.0	ND	98	70-125	7	20	
Bromoform	27.3	5.0	0.32	ug/l	25.0	ND	109	65-135	8	25	
Bromochloromethane	24.6	2.0	0.30	ug/l	25.0	ND	98	70-135	6	20	
Bromodichloromethane	25.7	5.0	0.40	ug/l	25.0	ND	103	55-135	4	25	
Bromomethane	28.4	5.0	0.42	ug/l	25.0	ND	114	55-145	7	25	
Carbon tetrachloride	24.9	5.0	0.37	ug/l	25.0	ND	100	65-135	2	20	
Chlorobenzene	25.2	5.0	0.25	ug/l	25.0	ND	101	70-125	4	20	
Chloroethane	25.2	5.0	0.22	ug/l	25.0	ND	101	65-130	8	20	
Chloroform	23.5	5.0	0.28	ug/l	25.0	ND	94	65-140	5	25	
Chloromethane	23.9	2.0	0.36	ug/l	25.0	ND	96	75-125	5	20	
Dibromochloromethane	27.0	5.0	0.40	ug/l	25.0	ND	108	55-140	3	25	
Dichlorodifluoromethane	26.2	2.0	0.33	ug/l	25.0	ND	105	65-135	7	20	
Dichlorofluoromethane	25.8	5.0	0.40	ug/l	25.0	ND	103	45-145	14	25	
1,1-Dichloroethane	23.7	5.0	0.28	ug/l	25.0	ND	95	65-135	3	20	
1,1-Dichloroethene	24.9	5.0	0.29	ug/l	25.0	ND	100	70-135	6	20	
1,2-Dibromo-3-chloropropane	25.0	2.0	0.28	ug/l	25.0	ND	100	65-140	5	25	
1,2-Dibromoethane (EDB)	21.2	5.0	0.97	ug/l	25.0	ND	85	45-145	4	30	
1,2-Dibromomethane	26.4	2.0	0.40	ug/l	25.0	ND	106	70-130	8	25	
1,2-Dichlorobenzene	25.7	2.0	0.36	ug/l	25.0	ND	103	65-135	4	25	
1,2-Dichlorobenzene	24.6	2.0	0.32	ug/l	25.0	ND	98	75-125	6	20	
1,3-Dichlorobenzene	24.7	2.0	0.35	ug/l	25.0	ND	99	75-125	6	20	
1,4-Dichlorobenzene	22.8	2.0	0.37	ug/l	25.0	ND	91	75-125	2	20	
1,1-Dichloroethane	20.1	5.0	0.79	ug/l	25.0	ND	80	25-155	2	30	
1,1-Dichloroethene	26.0	2.0	0.27	ug/l	25.0	ND	104	65-130	6	20	
1,2-Dichloroethane	24.4	2.0	0.28	ug/l	25.0	ND	98	60-140	7	20	
1,1-Dichloroethene	26.1	5.0	0.42	ug/l	25.0	ND	104	60-130	8	20	
cis-1,2-Dichloroethene	25.8	2.0	0.32	ug/l	25.0	ND	103	65-130	6	20	
trans-1,2-Dichloroethene	26.6	2.0	0.27	ug/l	25.0	ND	106	65-130	6	20	
1,2-Dichloropropane	26.0	2.0	0.35	ug/l	25.0	ND	100	65-130	4	20	
1,3-Dichloropropane	25.5	2.0	0.32	ug/l	25.0	ND	102	65-135	6	25	
2,2-Dichloropropane	15.4	2.0	0.34	ug/l	25.0	ND	62	60-145	7	25	
1,1-Dichloropropene	23.3	2.0	0.28	ug/l	25.0	ND	93	70-135	2	20	
cis-1,3-Dichloropropene	19.8	2.0	0.22	ug/l	25.0	ND	79	70-130	6	20	
trans-1,3-Dichloropropene	15.7	2.0	0.32	ug/l	25.0	ND	63	65-135	6	25	M2

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 54205.001  
 Report Number: IQE1328

Sampled: 05/11/07  
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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E13016 Extracted: 05/13/07</b>											
<b>Matrix Spike Dup Analyzed: 05/13/2007 (7E13016-MSD1)</b>											
<b>Source: IQE1316-02</b>											
Ethylbenzene	37.0	2.0	0.25	ug/l	25.0	12	100	65-130	3	20	
Hexachlorobutadiene	23.2	5.0	0.38	ug/l	25.0	ND	93	60-135	0	20	
Isopropylbenzene	27.4	2.0	0.25	ug/l	25.0	0.38	108	70-135	6	20	
p-Isopropyltoluene	24.8	2.0	0.28	ug/l	25.0	ND	99	65-130	5	20	
Methylene chloride	25.3	5.0	0.95	ug/l	25.0	ND	101	50-135	8	20	
Naphthalene	27.5	5.0	0.41	ug/l	25.0	2.6	100	50-140	5	30	
n-Propylbenzene	26.5	2.0	0.27	ug/l	25.0	0.86	103	70-135	2	20	
Styrene	24.6	2.0	0.16	ug/l	25.0	ND	98	50-145	4	30	
1,1,1,2-Tetrachloroethane	22.0	5.0	0.27	ug/l	25.0	ND	88	65-140	3	20	
1,1,2,2-Tetrachloroethane	28.4	2.0	0.24	ug/l	25.0	ND	114	55-135	10	30	
Tetrachloroethene	25.3	2.0	0.32	ug/l	25.0	ND	101	65-130	5	20	
Toluene	38.5	2.0	0.36	ug/l	25.0	14	98	70-125	3	20	
1,2,3-Trichlorobenzene	22.4	5.0	0.30	ug/l	25.0	ND	90	60-135	2	20	
1,2,4-Trichlorobenzene	23.8	5.0	0.48	ug/l	25.0	ND	95	65-135	1	20	
1,1,1-Trichloroethane	23.1	2.0	0.30	ug/l	25.0	ND	92	65-140	9	20	
1,1,2-Trichloroethane	28.0	2.0	0.30	ug/l	25.0	ND	112	65-130	5	25	
Trichloroethene	22.8	2.0	0.26	ug/l	25.0	ND	91	65-125	4	20	
Trichlorofluoromethane	25.1	5.0	0.34	ug/l	25.0	ND	100	60-145	5	25	
1,2,3-Trichloropropane	27.0	10	0.40	ug/l	25.0	ND	108	55-135	11	30	
1,2,4-Trimethylbenzene	30.0	2.0	0.23	ug/l	25.0	5.4	98	55-135	5	25	
1,3,5-Trimethylbenzene	26.6	2.0	0.26	ug/l	25.0	1.2	102	70-130	5	20	
Vinyl chloride	24.6	5.0	0.30	ug/l	25.0	ND	98	45-140	2	30	
o-Xylene	35.6	2.0	0.30	ug/l	25.0	11	98	65-125	2	20	
m,p-Xylenes	71.4	2.0	0.60	ug/l	50.0	21	101	65-130	3	25	
Xylenes, Total	107	4.0	0.90	ug/l	75.0	32	100	60-130	3	20	
Di-isopropyl Ether (DIPE)	27.2	5.0	0.25	ug/l	25.0	ND	109	60-140	7	25	
Ethyl tert-Butyl Ether (ETBE)	17.6	5.0	0.28	ug/l	25.0	ND	70	60-135	10	25	
tert-Amyl Methyl Ether (TAME)	17.5	5.0	0.33	ug/l	25.0	ND	70	60-140	11	30	
Methyl-tert-butyl Ether (MTBE)	23.2	5.0	0.32	ug/l	25.0	ND	93	55-145	9	25	
tert-Butanol (TBA)	130	50	4.9	ug/l	125	ND	104	65-140	3	25	
Surrogate Dibromofluoromethane	25.2			ug/l	25.0		101	80-120			
Surrogate Toluene-d8	25.5			ug/l	25.0		102	80-120			
Surrogate 4-Bromofluorobenzene	24.0			ug/l	25.0		96	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E14014 Extracted: 05/14/07</b>											
<b>Blank Analyzed: 05/14/2007 (7E14014-BLK1)</b>											
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromoform	ND	5.0	0.32	ug/l							
Bromochloromethane	ND	2.0	0.30	ug/l							
Bromodichloromethane	ND	5.0	0.40	ug/l							
Bromomethane	ND	5.0	0.42	ug/l							
n-Butylbenzene	ND	5.0	0.37	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
tert-Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.40	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.40	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.97	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.40	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.42	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.32	ug/l							
2,2-Dichloropropane	ND	2.0	0.34	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.32	ug/l							

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### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E14014 Extracted: 05/14/07</b>											
<b>Blank Analyzed: 05/14/2007 (7E14014-BLK1)</b>											
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.95	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.27	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.30	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.40	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.30	ug/l							
o-Xylene	ND	2.0	0.30	ug/l							
m,p-Xylenes	ND	2.0	0.60	ug/l							
Xylenes, Total	ND	4.0	0.90	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
tert-Butanol (TBA)	ND	50	4.9	ug/l							
Surrogate Dibromofluoromethane	25.4			ug/l	25.0		102	80-120			
Surrogate Toluene-d8	24.6			ug/l	25.0		98	80-120			
Surrogate 4-Bromofluorobenzene	22.6			ug/l	25.0		90	80-120			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E14014 Extracted: 05/14/07</b>											
<b>LCS Analyzed: 05/14/2007 (7E14014-BS1)</b>											
Benzene	25.3	2.0	0.28	ug/l	25.0		101	70-120			
Bromobenzene	22.4	5.0	0.27	ug/l	25.0		90	75-120			
Bromochloromethane	24.4	5.0	0.32	ug/l	25.0		98	70-130			
Bromodichloromethane	20.8	2.0	0.30	ug/l	25.0		83	70-135			
Bromoform	20.2	5.0	0.40	ug/l	25.0		81	55-130			
Bromomethane	25.9	5.0	0.42	ug/l	25.0		104	65-140			
n-Butylbenzene	24.7	5.0	0.37	ug/l	25.0		99	70-130			
sec-Butylbenzene	23.9	5.0	0.25	ug/l	25.0		96	70-125			
tert-Butylbenzene	23.1	5.0	0.22	ug/l	25.0		92	70-125			
Carbon tetrachloride	20.3	5.0	0.28	ug/l	25.0		81	65-140			
Chlorobenzene	23.5	2.0	0.36	ug/l	25.0		94	75-120			
Chloroethane	34.6	5.0	0.40	ug/l	25.0		138	60-140			
Chloroform	22.2	2.0	0.33	ug/l	25.0		89	70-130			
Chloromethane	36.4	5.0	0.40	ug/l	25.0		146	50-140			L
2-Chlorotoluene	22.5	5.0	0.28	ug/l	25.0		90	70-125			
4-Chlorotoluene	22.7	5.0	0.29	ug/l	25.0		91	75-125			
Dibromochloromethane	22.5	2.0	0.28	ug/l	25.0		90	70-140			
1,2-Dibromo-3-chloropropane	21.3	5.0	0.97	ug/l	25.0		85	50-135			
1,2-Dibromoethane (EDB)	22.9	2.0	0.40	ug/l	25.0		92	75-125			
Dibromomethane	22.2	2.0	0.36	ug/l	25.0		89	70-125			
1,2-Dichlorobenzene	23.1	2.0	0.32	ug/l	25.0		92	75-120			
1,3-Dichlorobenzene	23.3	2.0	0.35	ug/l	25.0		93	75-120			
1,4-Dichlorobenzene	21.7	2.0	0.37	ug/l	25.0		87	75-120			
Dichlorodifluoromethane	24.8	5.0	0.79	ug/l	25.0		99	35-155			
1,1-Dichloroethane	28.0	2.0	0.27	ug/l	25.0		112	70-125			
1,2-Dichloroethane	20.8	2.0	0.28	ug/l	25.0		83	60-140			
1,1-Dichloroethene	22.4	5.0	0.42	ug/l	25.0		90	70-125			
cis-1,2-Dichloroethene	23.9	2.0	0.32	ug/l	25.0		96	70-125			
trans-1,2-Dichloroethene	25.2	2.0	0.27	ug/l	25.0		101	70-125			
1,2-Dichloropropane	28.3	2.0	0.35	ug/l	25.0		113	70-125			
1,3-Dichloropropane	23.8	2.0	0.32	ug/l	25.0		95	70-120			
2,2-Dichloropropane	22.4	2.0	0.34	ug/l	25.0		90	65-140			
1,1-Dichloropropene	22.2	2.0	0.28	ug/l	25.0		89	75-130			
cis-1,3-Dichloropropene	22.9	2.0	0.22	ug/l	25.0		92	75-125			
trans-1,3-Dichloropropene	21.3	2.0	0.32	ug/l	25.0		85	70-125			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E14014 Extracted: 05/14/07</b>											
<b>LCS Analyzed: 05/14/2007 (7E14014-BS1)</b>											
Ethylbenzene	24.5	2.0	0.25	ug/l	25.0	98	75-125				
Hexachlorobutadiene	30.1	5.0	0.38	ug/l	25.0	120	65-135				
Isopropylbenzene	26.6	2.0	0.25	ug/l	25.0	106	75-130				
p-Isopropyltoluene	23.8	2.0	0.28	ug/l	25.0	95	75-125				
Meihylene chloride	24.4	5.0	0.95	ug/l	25.0	98	55-130				
Naphthalene	26.7	5.0	0.41	ug/l	25.0	107	55-135				
n-Propylbenzene	25.4	2.0	0.27	ug/l	25.0	102	75-130				
Styrene	25.2	2.0	0.16	ug/l	25.0	101	75-130				
1,1,1,2-Tetrachloroethane	22.7	5.0	0.27	ug/l	25.0	91	70-130				
1,1,2,2-Tetrachloroethane	23.6	2.0	0.24	ug/l	25.0	94	55-130				
Tetrachloroethene	21.4	2.0	0.32	ug/l	25.0	86	70-125				
Toluene	23.6	2.0	0.36	ug/l	25.0	94	70-120				
1,2,3-Trichlorobenzene	27.0	5.0	0.30	ug/l	25.0	108	65-125				
1,2,4-Trichlorobenzene	27.2	5.0	0.48	ug/l	25.0	109	70-135				
1,1,1-Trichloroethane	20.7	2.0	0.30	ug/l	25.0	83	65-135				
1,1,2-Trichloroethane	23.9	2.0	0.30	ug/l	25.0	96	70-125				
Trichloroethene	21.6	2.0	0.26	ug/l	25.0	86	70-125				
Trichlorofluoromethane	20.4	5.0	0.34	ug/l	25.0	82	65-145				
1,2,3-Trichloropropane	24.5	10	0.40	ug/l	25.0	98	60-130				
1,2,4-Trimethylbenzene	23.6	2.0	0.23	ug/l	25.0	94	75-125				
1,3,5-Trimethylbenzene	24.0	2.0	0.26	ug/l	25.0	96	75-125				
Vinyl chloride	33.5	5.0	0.30	ug/l	25.0	134	55-135				
o-Xylene	24.3	2.0	0.30	ug/l	25.0	97	75-125				
m,p-Xylenes	49.1	2.0	0.60	ug/l	50.0	98	75-125				
Xylenes, Total	73.4	4.0	0.90	ug/l	75.0	98	70-125				
Di-isopropyl Ether (DIPE)	32.3	5.0	0.25	ug/l	25.0	129	60-135				
Ethyl tert-Butyl Ether (ETBE)	28.2	5.0	0.28	ug/l	25.0	113	65-135				
tert-Amyl Methyl Ether (TAME)	27.5	5.0	0.33	ug/l	25.0	110	60-135				
Methyl-tert-butyl Ether (MTBE)	25.5	5.0	0.32	ug/l	25.0	102	60-135				
tert-Butanol (TBA)	121	50	4.9	ug/l	125	97	70-135				
Surrogate Dibromofluoromethane	24.5			ug/l	25.0	98	80-120				
Surrogate Toluene-d8	25.9			ug/l	25.0	104	80-120				
Surrogate 4-Bromofluorobenzene	23.4			ug/l	25.0	94	80-120				

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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1328

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Received: 05/11/07

## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E14014 Extracted: 05/14/07</b>											
<b>Matrix Spike Analyzed: 05/14/2007 (7E14014-MS1)</b>											
<b>Source: IQE1328-02</b>											
Benzene	55.5	2.0	0.28	ug/l	25.0	29	106	65-125			
Bromobenzene	24.7	5.0	0.27	ug/l	25.0	ND	99	70-125			
Bromochloromethane	25.6	5.0	0.32	ug/l	25.0	ND	102	65-135			
Bromodichloromethane	22.9	2.0	0.30	ug/l	25.0	ND	92	70-135			
Bromoform	20.8	5.0	0.40	ug/l	25.0	ND	83	55-135			
Bromomethane	25.4	5.0	0.42	ug/l	25.0	ND	102	55-145			
n-Butylbenzene	27.3	5.0	0.37	ug/l	25.0	ND	109	65-135			
sec-Butylbenzene	28.0	5.0	0.25	ug/l	25.0	1.2	107	70-125			
tert-Butylbenzene	26.0	5.0	0.22	ug/l	25.0	ND	104	65-130			
Carbon tetrachloride	21.8	5.0	0.28	ug/l	25.0	ND	87	65-140			
Chlorobenzene	25.9	2.0	0.36	ug/l	25.0	ND	104	75-125			
Chloroethane	35.2	5.0	0.40	ug/l	25.0	ND	141	55-140			MI
Chloroform	23.5	2.0	0.33	ug/l	25.0	ND	94	65-135			
Chloromethane	42.0	5.0	0.40	ug/l	25.0	ND	168	45-145			MI
2-Chlorotoluene	24.8	5.0	0.28	ug/l	25.0	ND	99	65-135			
4-Chlorotoluene	25.7	5.0	0.29	ug/l	25.0	ND	103	70-135			
Dibromochloromethane	23.4	2.0	0.28	ug/l	25.0	ND	94	65-140			
1,2-Dibromo-3-chloropropane	21.9	5.0	0.97	ug/l	25.0	ND	88	45-145			
1,2-Dibromoethane (EDB)	23.7	2.0	0.40	ug/l	25.0	ND	95	70-130			
Dibromomethane	22.9	2.0	0.36	ug/l	25.0	ND	92	65-135			
1,2-Dichlorobenzene	24.6	2.0	0.32	ug/l	25.0	ND	98	75-125			
1,3-Dichlorobenzene	25.7	2.0	0.35	ug/l	25.0	ND	103	75-125			
1,4-Dichlorobenzene	23.9	2.0	0.37	ug/l	25.0	ND	96	75-125			
Dichlorodifluoromethane	16.7	5.0	0.79	ug/l	25.0	ND	67	25-155			
1,1-Dichloroethane	31.0	2.0	0.27	ug/l	25.0	1.5	118	65-130			
1,2-Dichloroethane	21.6	2.0	0.28	ug/l	25.0	0.39	85	60-140			
1,1-Dichloroethene	33.8	5.0	0.42	ug/l	25.0	9.2	98	60-130			
cis-1,2-Dichloroethene	51.4	2.0	0.32	ug/l	25.0	26	102	65-130			
trans-1,2-Dichloroethene	28.4	2.0	0.27	ug/l	25.0	2.6	103	65-130			
1,2-Dichloropropane	31.7	2.0	0.35	ug/l	25.0	ND	127	65-130			
1,3-Dichloropropane	25.9	2.0	0.32	ug/l	25.0	ND	104	65-135			
2,2-Dichloropropane	23.8	2.0	0.34	ug/l	25.0	ND	95	60-145			
1,1-Dichloropropene	24.7	2.0	0.28	ug/l	25.0	ND	99	70-135			
cis-1,3-Dichloropropene	23.9	2.0	0.22	ug/l	25.0	ND	96	70-130			
trans-1,3-Dichloropropene	21.4	2.0	0.32	ug/l	25.0	ND	86	65-135			

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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E14014 Extracted: 05/14/07</b>											
<b>Matrix Spike Analyzed: 05/14/2007 (7E14014-MS1)</b>											
<b>Source: IQE1328-02</b>											
Ethylbenzene	27.4	2.0	0.25	ug/l	25.0	1.0	106	65-130			
Hexachlorobutadiene	32.8	5.0	0.38	ug/l	25.0	ND	131	60-135			
Isopropylbenzene	31.0	2.0	0.25	ug/l	25.0	1.4	118	70-135			
p-Isopropyltoluene	26.6	2.0	0.28	ug/l	25.0	ND	106	65-130			
Methylene chloride	26.5	5.0	0.95	ug/l	25.0	ND	106	50-135			
Naphthalene	26.5	5.0	0.41	ug/l	25.0	0.76	103	50-140			
n-Propylbenzene	28.9	2.0	0.27	ug/l	25.0	0.46	114	70-135			
Styrene	24.5	2.0	0.16	ug/l	25.0	ND	98	50-145			
1,1,1,2-Tetrachloroethane	23.8	5.0	0.27	ug/l	25.0	ND	95	65-140			
1,1,2,2-Tetrachloroethane	26.3	2.0	0.24	ug/l	25.0	ND	105	55-135			
Tetrachloroethene	24.2	2.0	0.32	ug/l	25.0	0.37	95	65-130			
Toluene	25.9	2.0	0.36	ug/l	25.0	0.47	102	70-125			
1,2,3-Trichlorobenzene	26.4	5.0	0.30	ug/l	25.0	ND	106	60-135			
1,2,4-Trichlorobenzene	27.8	5.0	0.48	ug/l	25.0	ND	111	65-135			
1,1,1-Trichloroethane	22.3	2.0	0.30	ug/l	25.0	ND	89	65-140			
1,1,2-Trichloroethane	25.9	2.0	0.30	ug/l	25.0	ND	104	65-130			
Trichloroethene	60.0	2.0	0.26	ug/l	25.0	37	92	65-125			
Trichlorofluoromethane	21.1	5.0	0.34	ug/l	25.0	ND	84	60-145			
1,2,3-Trichloropropane	24.7	10	0.40	ug/l	25.0	ND	99	55-135			
1,2,4-Trimethylbenzene	25.0	2.0	0.23	ug/l	25.0	ND	100	55-135			
1,3,5-Trimethylbenzene	26.0	2.0	0.26	ug/l	25.0	ND	104	70-130			
Vinyl chloride	33.0	5.0	0.30	ug/l	25.0	0.82	129	45-140			
o-Xylene	26.3	2.0	0.30	ug/l	25.0	ND	105	65-125			
m,p-Xylenes	53.4	2.0	0.60	ug/l	50.0	ND	107	65-130			
Xylenes, Total	79.7	4.0	0.90	ug/l	75.0	ND	106	60-130			
Di-isopropyl Ether (DIPE)	35.1	5.0	0.25	ug/l	25.0	0.30	139	60-140			
Ethyl tert-Butyl Ether (ETBE)	29.5	5.0	0.28	ug/l	25.0	ND	118	60-135			
tert-Amyl Methyl Ether (TAME)	28.5	5.0	0.33	ug/l	25.0	ND	114	60-140			
Methyl-tert-butyl Ether (MTBE)	25.8	5.0	0.32	ug/l	25.0	ND	103	55-145			
tert-Butanol (TBA)	163	50	4.9	ug/l	125	ND	130	65-140			
Surrogate Dibromoformmethane	24.5			ug/l	25.0		98	80-120			
Surrogate Toluene-d8	25.7			ug/l	25.0		103	80-120			
Surrogate 4-Bromoformbenzene	24.6			ug/l	25.0		98	80-120			

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Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E14014 Extracted: 05/14/07</b>											
<b>Matrix Spike Dup Analyzed: 05/14/2007 (7E14014-MSD1)</b>											
<b>Source: IQE1328-02</b>											
Benzene	53.8	2.0	0.28	ug/l	25.0	29	99	65-125	3	20	
Bromobenzene	23.8	5.0	0.27	ug/l	25.0	ND	95	70-125	4	20	
Bromoform	25.3	5.0	0.32	ug/l	25.0	ND	101	65-135	1	25	
Bromochloromethane	22.7	2.0	0.30	ug/l	25.0	ND	91	70-135	1	20	
Bromodichloromethane	20.7	5.0	0.40	ug/l	25.0	ND	83	55-135	1	25	
Bromomethane	23.6	5.0	0.42	ug/l	25.0	ND	94	55-145	7	25	
Carbon tetrachloride	26.6	5.0	0.37	ug/l	25.0	ND	106	65-135	3	20	
Chlorobenzene	26.7	5.0	0.25	ug/l	25.0	1.2	102	70-125	5	20	
Chloroethane	24.7	5.0	0.22	ug/l	25.0	ND	99	65-130	5	20	
Chloroform	21.1	5.0	0.28	ug/l	25.0	ND	84	65-140	3	25	
Chloromethane	24.7	2.0	0.36	ug/l	25.0	ND	99	75-125	5	20	
Chloroethene	33.7	5.0	0.40	ug/l	25.0	ND	135	55-140	4	25	MI
Dibromochloromethane	23.1	2.0	0.33	ug/l	25.0	ND	92	65-135	2	20	
2-Chlorotoluene	39.7	5.0	0.40	ug/l	25.0	ND	159	45-145	6	25	MI
4-Chlorotoluene	23.7	5.0	0.28	ug/l	25.0	ND	95	65-135	5	20	
1,2-Dibromo-3-chloropropane	22.4	2.0	0.28	ug/l	25.0	ND	90	65-140	4	25	
1,2-Dibromoethane (EDB)	21.5	5.0	0.97	ug/l	25.0	ND	86	45-145	2	30	
1,2-Dibromomethane	23.4	2.0	0.40	ug/l	25.0	ND	94	70-130	1	25	
1,2-Dichlorobenzene	22.9	2.0	0.36	ug/l	25.0	ND	92	65-135	0	25	
1,2-Dichlorobenzene	23.8	2.0	0.32	ug/l	25.0	ND	95	75-125	3	20	
1,3-Dichlorobenzene	24.9	2.0	0.35	ug/l	25.0	ND	100	75-125	3	20	
1,4-Dichlorobenzene	23.3	2.0	0.37	ug/l	25.0	ND	93	75-125	3	20	
Dichlorodifluoromethane	23.1	5.0	0.79	ug/l	25.0	ND	64	25-155	4	30	
1,1-Dichloroethane	16.1	5.0	0.27	ug/l	25.0	1.5	117	65-130	1	20	
1,1-Dichloroethene	30.8	2.0	0.27	ug/l	25.0	0.39	84	60-140	1	20	
cis-1,2-Dichloroethene	21.3	2.0	0.28	ug/l	25.0	ND	93	60-130	4	20	
trans-1,2-Dichloroethene	50.2	2.0	0.32	ug/l	25.0	2.6	97	65-130	2	20	
1,2-Dichloropropane	28.0	2.0	0.27	ug/l	25.0	2.6	102	65-130	1	20	
1,3-Dichloropropane	31.0	2.0	0.35	ug/l	25.0	ND	124	65-130	2	20	
2,2-Dichloropropane	25.1	2.0	0.32	ug/l	25.0	ND	100	65-135	3	25	
1,1-Dichloropropene	22.3	2.0	0.34	ug/l	25.0	ND	89	60-145	7	25	
cis-1,3-Dichloropropene	23.3	2.0	0.28	ug/l	25.0	ND	93	70-135	6	20	
trans-1,3-Dichloropropene	21.3	2.0	0.22	ug/l	25.0	ND	93	70-130	3	20	
							85	65-135	1	25	

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Sampled: 05/11/07  
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## METHOD BLANK/QC DATA

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E14014 Extracted: 05/14/07</b>											
<b>Matrix Spike Dup Analyzed: 05/14/2007 (7E14014-MSD1)</b>											
<b>Source: IQE1328-02</b>											
Ethylbenzene	26.4	2.0	0.25	ug/l	25.0	1.0	102	65-130	4	20	
Hexachlorobutadiene	31.8	5.0	0.38	ug/l	25.0	ND	127	60-135	3	20	
Isopropylbenzene	30.1	2.0	0.25	ug/l	25.0	1.4	115	70-135	3	20	
p-Isopropyltoluene	25.9	2.0	0.28	ug/l	25.0	ND	104	65-130	3	20	
Methylene chloride	25.7	5.0	0.95	ug/l	25.0	ND	103	50-135	3	20	
Naphthalene	27.1	5.0	0.41	ug/l	25.0	0.76	105	50-140	2	30	
n-Propylbenzene	28.0	2.0	0.27	ug/l	25.0	0.46	110	70-135	3	20	
Styrene	25.6	2.0	0.16	ug/l	25.0	ND	102	50-145	4	30	
1,1,1,2-Tetrachloroethane	23.5	5.0	0.27	ug/l	25.0	ND	94	65-140	1	20	
1,1,2,2-Tetrachloroethane	25.7	2.0	0.24	ug/l	25.0	ND	103	55-135	2	30	
Tetrachloroethene	23.6	2.0	0.32	ug/l	25.0	0.37	93	65-130	3	20	
Toluene	25.8	2.0	0.36	ug/l	25.0	0.47	101	70-125	0	20	
1,2,3-Trichlorobenzene	27.8	5.0	0.30	ug/l	25.0	ND	111	60-135	5	20	
1,2,4-Trichlorobenzene	28.3	5.0	0.48	ug/l	25.0	ND	113	65-135	2	20	
1,1,1-Trichloroethane	21.6	2.0	0.30	ug/l	25.0	ND	86	65-140	3	20	
1,1,2-Trichloroethane	26.1	2.0	0.30	ug/l	25.0	ND	104	65-130	1	25	
Trichloroethene	59.0	2.0	0.26	ug/l	25.0	37	88	65-125	2	20	
Trichlorofluoromethane	19.8	5.0	0.34	ug/l	25.0	ND	79	60-145	6	25	
1,2,3-Trichloropropane	24.4	10	0.40	ug/l	25.0	ND	98	55-135	1	30	
1,2,4-Trimethylbenzene	24.5	2.0	0.23	ug/l	25.0	ND	98	55-135	2	25	
1,3,5-Trimethylbenzene	25.0	2.0	0.26	ug/l	25.0	ND	100	70-130	4	20	
Vinyl chloride	30.8	5.0	0.30	ug/l	25.0	0.82	120	45-140	7	30	
o-Xylene	26.2	2.0	0.30	ug/l	25.0	ND	105	65-125	0	20	
m,p-Xylenes	53.3	2.0	0.60	ug/l	50.0	ND	107	65-130	0	25	
Xylenes, Total	79.5	4.0	0.90	ug/l	75.0	ND	106	60-130	0	20	
Di-isopropyl Ether (DIPE)	33.6	5.0	0.25	ug/l	25.0	0.30	133	60-140	4	25	
Ethyl tert-Butyl Ether (ETBE)	28.6	5.0	0.28	ug/l	25.0	ND	114	60-135	3	25	
tert-Amyl Methyl Ether (TAME)	28.0	5.0	0.33	ug/l	25.0	ND	112	60-140	2	30	
Methyl-tert-butyl Ether (MTBE)	25.7	5.0	0.32	ug/l	25.0	ND	103	55-145	0	25	
tert-Butanol (TBA)	152	50	4.9	ug/l	125	ND	122	65-140	7	25	
Surrogate Dibromofluoromethane	24.7			ug/l	25.0		99	80-120			
Surrogate Toluene-d8	25.9			ug/l	25.0		104	80-120			
Surrogate 4-Bromofluorobenzene	24.2			ug/l	25.0		97	80-120			

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## METHOD BLANK/QC DATA

### DISSOLVED GASES BY HEADSPACE EQUILIBRIUM (RSK-175 MOD.)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E22061 Extracted: 05/22/07</b>											
<b>Blank Analyzed: 05/22/2007 (7E22061-BLK1)</b>											
Methane	ND	0.050	0.021	mg/l							
<b>LCS Analyzed: 05/22/2007 (7E22061-BS1)</b>											
Methane	1.58	0.050	0.021	mg/l	1.36		116	80-120			
<b>Matrix Spike Analyzed: 05/22/2007 (7E22061-MS1)</b>											
Methane	1.23	0.050	0.021	mg/l	1.36	0.036	88	80-120			
<b>Matrix Spike Dup Analyzed: 05/22/2007 (7E22061-MSD1)</b>											
Methane	1.15	0.050	0.021	mg/l	1.36	0.036	82	80-120	7	25	

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
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Batch: 7E11053 Extracted: 05/11/07

**Blank Analyzed: 05/11/2007 (7E11053-BLK1)**

Nitrate-N	ND	0.11	0.060	mg/l
Sulfate	ND	0.50	0.20	mg/l

**LCS Analyzed: 05/11/2007 (7E11053-BS1)**

Nitrate-N	1.24	0.11	0.060	mg/l	1.13		110	90-110		
Sulfate	10.4	0.50	0.20	mg/l	10.0		104	90-110		M-3

**Matrix Spike Analyzed: 05/11/2007 (7E11053-MS1)**

Nitrate-N	3.38	0.11	0.060	mg/l	1.13	2.2	104	80-120		
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**Matrix Spike Dup Analyzed: 05/11/2007 (7E11053-MSD1)**

Nitrate-N	3.37	0.11	0.060	mg/l	1.13	2.2	104	80-120	0	20
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Batch: 7E11095 Extracted: 05/11/07

**Blank Analyzed: 05/11/2007 (7E11095-BLK1)**

Chromium VI	ND	0.0020	0.00020	mg/l
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**LCS Analyzed: 05/11/2007 (7E11095-BS1)**

Chromium VI	0.0496	0.0020	0.00020	mg/l	0.0500		99	90-110		
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**Matrix Spike Analyzed: 05/11/2007 (7E11095-MS1)**

Chromium VI	0.681	0.020	0.0020	mg/l	0.500	0.10	116	80-115		M1
-------------	-------	-------	--------	------	-------	------	-----	--------	--	----

**Matrix Spike Dup Analyzed: 05/11/2007 (7E11095-MSD1)**

Chromium VI	0.672	0.020	0.0020	mg/l	0.500	0.10	114	80-115	1	15
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TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

Arcadis - Blasland, Bouck & Lee  
3240 El Camino Real, Suite 200  
Irvine, CA 92602  
Attention: Jennifer Wiley

Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7E12057 Extracted: 05/12/07</b>											
<b>Blank Analyzed: 05/12/2007 (7E12057-BLK1)</b>											
Ferrous Iron	ND	0.10	0.10	mg/l							
<b>Duplicate Analyzed: 05/12/2007 (7E12057-DUP1)</b>											
Ferrous Iron	0.200	0.10	0.10	mg/l		0.20			0	20	HFT
<b>Batch: 7E22074 Extracted: 05/22/07</b>											
<b>Duplicate Analyzed: 05/22/2007 (7E22074-DUP1)</b>											
Alkalinity as CaCO <sub>3</sub>	224	2.0	2.0	mg/l		230			3	20	
<b>Reference Analyzed: 05/22/2007 (7E22074-SRM1)</b>											
Alkalinity as CaCO <sub>3</sub>	172	2.0	2.0	mg/l	181		95	90-110			

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Irvine, CA 92602  
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Project ID: Former Cenex Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## DATA QUALIFIERS AND DEFINITIONS

- HFT** The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- L** Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
- M1** The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M-3** Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
- QP** Hydrocarbon result partly due to individual peak(s) in quantitation range.
- ZX** Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

## ADDITIONAL COMMENTS

**For 8260 analyses:**

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

**For GRO (C4-C12):**

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

Arcadis - Blasland, Bouck & Lee  
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Irvine, CA 92602  
Attention: Jennifer Wiley

Project ID: Former Cenoco Refinery - 2006  
54205.001  
Report Number: IQE1328

Sampled: 05/11/07  
Received: 05/11/07

## Certification Summary

### TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 300.0	Water	X	X
EPA 7199	Water	X	X
EPA 8015B	Water	X	X
EPA 8260B	Water	X	X
RSK-175 MOD.	Water	N/A	N/A
SM 3500-Fe D	Water		
SM2320B	Water	X	X

*Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at [www.testamericainc.com](http://www.testamericainc.com)*

TestAmerica - Irvine, CA  
Sushmitha Reddy  
Project Manager

# TestAmerica

## ANALYTICAL TESTING CORPORATION

## CHAIN OF CUSTODY FORM

7461 Denier Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297  
E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046  
151st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851  
E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Page 1 of 1

Client Name/Address: El Camino Real, Ste. 200 Encino, CA 91362			Project/PO Number: Former CENCO Facility B0054205			Analysis Required								
Project Manager: Jennifer W. Key			Phone Number: (714) 732-9452											
Sampler: Maher Zein			Fax Number: (714) 732-9345											
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	OCG (826)	150 (150)	150 (150)	150 (150)	150 (150)	150 (150)		
B051107	W	VFA	3	5/11/07	0630	HC	✓	✓						
MW-101-0507	VFA + DGA	Plastic	6		0810	Various	✓	✓	✓					
W-10-0507		Plastic	6		0925		✓	✓	✓					
W-10-0507-D		Plastic	6		0925		✓	✓	✓					
MW-504-0507		Plastic	6		1135		✓	✓	✓					
MW-538-0507		Plastic	9		1240		✓	✓	✓	✓	✓	✓		
MW-52-0507		Plastic	6		1335		✓	✓	✓					
MW-501A-0507	↓	Plastic	6		1420		✓	✓	✓					
<i>Mark Sample</i>														
Relinquished By:			Date/Time:			Received By:			Date/Time:			Turnaround Time: (Check)		
<i>Maher Z.</i>			5/11/07 1700			<i>Jennifer TAI</i>			5/11/07 1700			same day _____ 72 hours _____		
Relinquished By:			Date/Time:			Received By:			Date/Time:			24 hours _____ 5 days _____		
<i>Jennifer TAI</i>			5/11/07 1810			<i>Jennifer TAI</i>						48 hours _____ normal <input checked="" type="checkbox"/>		
Relinquished By:			Date/Time:			Received in Lab By:			Date/Time:			Sample Integrity: (Check)		
<i>Jennifer TAI</i>			5/11/07 1810			<i>Edward R.</i>			5/11/07 1810			intact <input checked="" type="checkbox"/> on ice <input checked="" type="checkbox"/>		

**Note:** By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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**Appendix D**

Historical Groundwater Analytical  
Results

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-101	6/1/1988	--	88.66	ND	0	46.32	134.98
	9/1/1988	--	89.29	ND	0	45.69	134.98
	12/1/1988	--	90.10	ND	0	44.88	134.98
	3/1/1989	--	90.28	ND	0	44.70	134.98
	12/1/1989	--	90.29	ND	0	44.69	134.98
	3/1/1991	--	91.09	ND	0	43.89	134.98
	6/1/1991	--	90.24	ND	0	44.74	134.98
	12/1/1991	--	90.40	ND	0	44.83	135.23
	3/1/1992	--	89.87	ND	0	45.36	135.23
	6/1/1992	--	88.47	ND	0	46.76	135.23
	9/1/1992	--	88.60	ND	0	46.63	135.23
	12/1/1992	--	88.69	ND	0	46.54	135.23
	3/1/1993	--	87.35	ND	0	47.88	135.23
	9/1/1993	--	82.34	82.33	0.01	52.90	135.23
	11/1/1993	--	80.83	80.82	0.01	54.41	135.23
	3/1/1994	--	78.10	78.08	0.02	57.15	135.23
	6/1/1994	--	76.38	76.37	0.01	58.86	135.23
	9/1/1994	--	76.64	76.63	0.01	58.60	135.23
	12/1/1994	--	77.57	ND	0	57.66	135.23
	3/1/1995	--	77.46	ND	0	57.77	135.23
	9/1/1995	--	74.75	ND	0	60.48	135.23
	12/1/1995	--	75.15	ND	0	60.08	135.23
	7/1/1996	--	74.55	ND	0	60.68	135.23
	12/1/1996	--	75.61	ND	0	59.62	135.23
	1/1/1998	--	74.72	ND	0	60.51	135.23
	8/1/1998	--	73.45	ND	0	61.78	135.23
	1/1/1999	--	74.03	ND	0	61.20	135.23
	7/1/1999	--	75.53	ND	0	59.70	135.23
	1/1/2000	--	79.40	ND	0	55.83	135.23
	7/1/2000	--	81.20	ND	0	54.03	135.23
	2/1/2001	--	82.09	ND	0	53.14	135.23
	7/1/2001	--	81.60	ND	0	53.63	135.23
	5/1/2002	--	83.10	ND	0	52.13	135.23
	9/1/2002	--	85.49	ND	0	49.74	135.23
	6/28/2004	94.40	Dry	ND	0	Dry	135.23
MW-103	6/1/1988	--	93.36	ND	0	43.59	136.95
	9/1/1988	--	93.82	ND	0	43.13	136.95
	12/1/1988	--	94.76	ND	0	42.19	136.95
	3/1/1989	--	95.68	ND	0	41.27	136.95
	6/1/1989	--	95.92	ND	0	41.03	136.95
	9/1/1989	--	96.20	ND	0	40.75	136.95
	12/1/1989	--	96.90	ND	0	40.05	136.95
	3/1/1991	--	96.51	ND	0	40.44	136.95
	6/1/1991	--	96.08	ND	0	40.87	136.95
	9/1/1991	--	95.92	ND	0	41.03	136.95
	12/1/1991	--	95.91	ND	0	41.04	136.95
	3/1/1992	--	95.06	ND	0	41.89	136.95
	6/1/1992	--	93.90	ND	0	43.05	136.95

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-103	9/1/1992	--	93.73	ND	0	43.22	136.95
	12/1/1992	--	93.99	ND	0	42.96	136.95
	3/1/1993	--	93.15	ND	0	43.80	136.95
	5/1/1993	--	90.90	ND	0	46.05	136.95
	9/1/1993	--	88.67	ND	0	48.28	136.95
	11/1/1993	--	87.24	ND	0	49.71	136.95
	3/1/1994	--	84.86	84.85	0.01	52.10	136.95
	6/1/1994	--	83.15	83.14	0.01	53.81	136.95
	9/1/1994	--	82.70	82.69	0.01	54.26	136.95
	12/1/1994	--	83.17	ND	0	53.78	136.95
	3/1/1995	--	82.65	ND	0	54.30	136.95
	9/1/1995	--	81.03	ND	0	55.92	136.95
	12/1/1995	--	81.21	ND	0	55.74	136.95
	7/1/1996	--	80.41	ND	0	56.54	136.95
	12/1/1996	--	81.24	ND	0	55.71	136.95
	1/1/1998	--	80.55	ND	0	56.40	136.95
	8/1/1998	--	79.51	ND	0	57.44	136.95
	1/1/1999	--	79.88	ND	0	57.07	136.95
	7/1/1999	--	80.74	ND	0	56.21	136.95
	1/1/2000	--	83.70	ND	0	53.25	136.95
	7/1/2000	--	85.80	ND	0	51.15	136.95
	2/1/2001	--	87.01	ND	0	49.94	136.95
	7/1/2001	--	86.55	ND	0	50.40	136.95
	5/1/2002	--	87.88	ND	0	49.07	136.95
	9/1/2002	--	89.31	ND	0	47.64	136.95
	6/28/2004	99.00	94.34	94.32	0.02	40.91	135.23
MW-104 Abandoned	6/1/1988	--	87.95	ND	0	53.11	141.06
	9/1/1988	--	88.25	ND	0	52.81	141.06
	12/1/1988	--	88.67	ND	0	52.39	141.06
	3/1/1989	--	89.15	ND	0	51.91	141.06
	6/1/1989	--	89.57	ND	0	51.49	141.06
	9/1/1989	--	89.90	ND	0	51.16	141.06
	12/1/1989	--	90.17	ND	0	50.89	141.06
	3/1/1990	--	90.62	ND	0	50.44	141.06
	6/1/1990	--	90.82	ND	0	50.24	141.06
	9/1/1990	--	90.96	ND	0	50.10	141.06
	12/1/1990	--	91.13	ND	0	49.93	141.06
	3/1/1991	--	91.12	ND	0	49.94	141.06
	6/1/1991	--	91.02	ND	0	50.04	141.06
	9/1/1991	--	90.76	ND	0	50.30	141.06
	12/1/1991	--	90.63	ND	0	50.43	141.06
	3/1/1992	--	90.45	ND	0	50.61	141.06
	6/1/1992	--	89.90	ND	0	51.16	141.06
	9/1/1992	--	89.33	ND	0	51.73	141.06
	12/1/1992	--	89.10	ND	0	51.96	141.06
	3/1/1993	--	88.71	ND	0	52.35	141.06
	5/1/1993	--	87.55	ND	0	53.51	141.06
	9/1/1993	--	86.15	ND	0	54.91	141.06

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-104 Abandoned	11/1/1993	--	84.05	ND	0	57.01	141.06
	3/1/1994	--	82.33	ND	0	58.73	141.06
	6/1/1994	--	80.55	ND	0	60.51	141.06
	9/1/1994	--	79.37	79.36	0.01	61.70	141.06
	12/1/1994	--	79.50	ND	0	61.56	141.06
	3/1/1995	--	79.32	ND	0	61.74	141.06
	9/1/1995	--	77.26	ND	0	63.80	141.06
	12/1/1995	--	77.21	ND	0	63.85	141.06
	7/1/1996	--	76.75	ND	0	64.31	141.06
	12/1/1996	--	77.38	ND	0	63.68	141.06
	1/1/1998	--	75.58	ND	0	65.48	141.06
	8/1/1998	--	75.58	ND	0	65.48	141.06
	1/1/1999	--	75.91	ND	0	65.15	141.06
	MW-104A	7/1/1999	--	76.32	ND	0	64.84
MW-105	1/1/2000	--	78.86	ND	0	62.30	141.16
	7/1/2000	--	81.50	ND	0	59.66	141.16
	2/1/2001	--	82.89	ND	0	58.27	141.16
	7/1/2001	--	82.38	ND	0	58.78	141.16
	5/1/2002	--	83.64	ND	0	57.52	141.16
	9/1/2002	--	84.33	ND	0	56.83	141.16
	6/28/2004	100.00	88.16	ND	0	53.00	141.16
	7/1/1996	--	73.85	ND	0	64.78	138.63
	12/1/1996	--	75.12	ND	0	63.51	138.63
	1/1/1998	--	74.12	ND	0	64.51	138.63
	8/1/1998	--	72.66	ND	0	65.97	138.63
	1/1/1999	--	73.15	ND	0	65.48	138.63
	7/1/1999	--	74.95	ND	0	63.68	138.63
	1/1/2000	--	78.91	ND	0	59.72	138.63
	7/1/2000	--	80.72	ND	0	57.91	138.63
	2/1/2001	--	81.68	ND	0	56.95	138.63
	7/1/2001	--	80.95	ND	0	57.68	138.63
	5/1/2002	--	82.59	ND	0	56.04	138.63
	9/1/2002	--	84.92	ND	0	53.71	138.63
MW-106	6/28/2004	100.00	90.69	ND	0	47.94	138.63
	7/1/1996	--	81.86	ND	0	66.55	148.41
	12/1/1996	--	82.05	ND	0	66.36	148.41
	1/1/1998	--	81.29	ND	0	67.12	148.41
	8/1/1998	--	80.47	ND	0	67.94	148.41
	1/1/1999	--	80.48	ND	0	67.93	148.41
	7/1/1999	--	80.92	ND	0	67.49	148.41
	1/1/2000	--	82.65	ND	0	65.76	148.41

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-106A	7/1/2000	--	85.18	ND	0	63.23	148.41
	2/1/2001	--	86.68	ND	0	61.73	148.41
	7/1/2001	--	86.89	ND	0	61.52	148.41
	5/1/2002	--	88.19	ND	0	60.22	148.41
	9/1/2002	--	88.86	ND	0	59.55	148.41
	6/28/2004	106.00	93.21	ND	0	55.20	148.41
MW-107A	7/1/1996	--	89.92	ND	0	59.01	148.93
	12/1/1996	--	89.85	ND	0	59.08	148.93
	1/1/1998	--	88.99	ND	0	59.94	148.93
	8/1/1998	--	88.05	ND	0	60.88	148.93
	1/1/1999	--	88.14	ND	0	60.79	148.93
	7/1/1999	--	88.45	ND	0	60.48	148.93
	1/1/2000	--	90.00	ND	0	58.93	148.93
	7/1/2000	--	91.90	ND	0	57.03	148.93
	2/1/2001	--	93.51	ND	0	55.42	148.93
	7/1/2001	--	93.92	ND	0	55.01	148.93
	5/1/2002	--	95.2	ND	0	53.73	148.93
	9/1/2002	--	95.92	ND	0	53.01	148.93
	6/28/2004	108.00	99.23	ND	0	49.70	148.93
	6/1/1988	--	90.05	ND	0	42.86	132.91
MW-201	9/1/1988	--	90.77	ND	0	42.14	132.91
	12/1/1988	--	92.24	ND	0	40.67	132.91
	3/1/1989	--	92.84	ND	0	40.07	132.91
	6/1/1989	--	93.00	ND	0	39.91	132.91
	9/1/1989	--	93.60	ND	0	39.31	132.91
	12/1/1989	--	94.51	ND	0	38.40	132.91
	3/1/1990	--	94.91	ND	0	38.00	132.91
	6/1/1990	--	94.48	ND	0	38.43	132.91
	9/1/1990	--	94.85	ND	0	38.06	132.91
	12/1/1990	--	95.43	ND	0	37.48	132.91
	3/1/1991	--	93.88	ND	0	39.03	132.91
	6/1/1991	--	93.05	ND	0	39.86	132.91
	9/1/1991	--	93.57	ND	0	39.34	132.91
	12/1/1991	--	92.90	ND	0	40.01	132.91
	3/1/1992	--	91.30	ND	0	41.61	132.91
	6/1/1992	--	90.10	ND	0	42.81	132.91
	9/1/1992	--	90.40	ND	0	42.51	132.91
	12/1/1992	--	90.29	ND	0	42.62	132.91
	3/1/1993	--	88.84	ND	0	44.07	132.91
	5/1/1993	--	86.33	ND	0	46.58	132.91
	9/1/1993	--	84.47	84.45	0.02	48.46	132.91
	12/1/1993	--	82.75	82.74	0.01	50.17	132.91
	3/1/1994	--	79.76	79.75	0.01	53.16	132.91
	6/1/1994	--	78.06	78.05	0.01	54.86	132.91
	9/1/1994	--	78.46	78.45	0.01	54.46	132.91
	12/1/1994	--	79.10	ND	0	53.81	132.91
	3/1/1995	--	77.87	ND	0	55.04	132.91

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-201	9/1/1995	--	76.53	ND	0	56.38	132.91
	12/1/1995	--	76.79	ND	0	56.12	132.91
	7/1/1996	--	76.00	ND	0	56.91	132.91
	12/1/1996	--	76.93	ND	0	55.98	132.91
	1/1/1998	--	76.02	ND	0	56.89	132.91
	8/1/1998	--	75.01	ND	0	57.90	132.91
	1/1/1999	--	75.36	ND	0	57.55	132.91
	7/1/1999	--	76.88	ND	0	56.03	132.91
	1/1/2000	--	79.50	ND	0	53.41	132.91
	7/1/2000	--	82.44	ND	0	50.47	132.91
	2/1/2001	--	83.32	ND	0	49.59	132.91
	7/1/2001	--	83.00	ND	0	49.91	132.91
	5/1/2002	--	84.45	ND	0	48.46	132.91
	9/1/2002	--	86.96	ND	0	45.95	132.91
	6/28/2004	103.00	92.13	ND	0	40.78	132.91
MW-202	6/1/1988	--	Dry	ND	0	NA	137.89
	9/1/1988	--	Dry	ND	0	NA	137.89
	12/1/1988	--	Dry	ND	0	NA	137.89
	3/1/1989	--	Dry	ND	0	NA	137.89
	6/1/1989	--	Dry	ND	0	NA	137.89
	9/1/1989	--	Dry	ND	0	NA	137.89
	12/1/1989	--	Dry	ND	0	NA	137.89
	3/1/1990	--	Dry	ND	0	NA	137.89
	9/1/1990	--	Dry	ND	0	NA	137.89
	12/1/1990	--	Dry	ND	0	NA	137.89
	3/1/1991	--	Dry	ND	0	NA	137.89
	6/1/1991	--	Dry	ND	0	NA	137.89
	9/1/1991	--	Dry	ND	0	NA	137.89
	12/1/1991	--	Dry	ND	0	NA	137.89
	3/1/1992	--	Dry	ND	0	NA	137.89
	6/1/1992	--	Dry	ND	0	NA	137.89
	9/1/1992	--	Dry	ND	0	NA	137.89
	12/1/1992	--	Dry	ND	0	NA	137.89
	3/1/1993	--	Dry	ND	0	NA	137.89
	5/1/1993	--	Dry	ND	0	NA	137.89
	9/1/1993	--	89.36	89.35	0.01	48.54	137.89
	11/1/1993	--	87.85	ND	0	50.04	137.89
	3/1/1994	--	85.36	85.35	0.01	52.54	137.89
	6/1/1994	--	83.53	83.52	0.01	54.37	137.89
	9/1/1994	--	83.32	83.31	0.01	54.58	137.89
	12/1/1994	--	83.88	83.87	0.01	54.02	137.89
	3/1/1995	--	83.10	ND	0	54.79	137.89
	9/1/1995	--	81.44	ND	0	56.45	137.89
	12/1/1995	--	81.71	ND	0	56.18	137.89
	7/1/1996	--	80.90	ND	0	56.99	137.89
	12/1/1996	--	81.78	ND	0	56.11	137.89
	1/1/1998	--	81.00	ND	0	56.89	137.89
	8/1/1998	--	79.93	ND	0	57.96	137.89

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-202	1/1/1999	--	83.35	ND	0	54.54	137.89
	7/1/1999	--	81.37	ND	0	56.52	137.89
	1/1/2000	--	84.70	ND	0	53.19	137.89
	7/1/2000	--	86.78	ND	0	51.11	137.89
	2/1/2001	--	87.86	ND	0	50.03	137.89
	7/1/2001	--	87.49	ND	0	50.40	137.89
	5/1/2002	--	88.88	ND	0	49.01	137.89
	9/1/2002	--	90.59	ND	0	47.30	137.89
	6/28/2004	105.00	Dry	ND	0	Dry	137.89
MW-203	6/1/1988	--	95.98	ND	0	47.91	143.89
	9/1/1988	--	96.30	ND	0	47.59	143.89
	12/1/1988	--	96.76	ND	0	47.13	143.89
	3/1/1989	--	97.15	ND	0	46.74	143.89
	6/1/1989	--	97.50	ND	0	46.39	143.89
	9/1/1989	--	97.85	ND	0	46.04	143.89
	12/1/1989	--	98.19	ND	0	45.70	143.89
	3/1/1990	--	98.72	ND	0	45.17	143.89
	9/1/1990	--	99.09	ND	0	44.80	143.89
	12/1/1990	--	99.55	ND	0	44.34	143.89
	3/1/1991	--	99.23	ND	0	44.66	143.89
	6/1/1991	--	99.19	ND	0	44.70	143.89
	9/1/1991	--	98.93	ND	0	44.96	143.89
	12/1/1991	--	98.84	ND	0	45.05	143.89
	3/1/1992	--	98.39	ND	0	45.50	143.89
	6/1/1992	--	97.76	ND	0	46.13	143.89
	9/1/1992	--	97.47	ND	0	46.42	143.89
	12/1/1992	--	97.50	ND	0	46.39	143.89
	3/1/1993	--	97.13	ND	0	46.76	143.89
	5/1/1993	--	96.14	ND	0	47.75	143.89
	9/1/1993	--	95.81	ND	0	48.08	143.89
	11/1/1993	--	93.84	93.83	0.01	50.06	143.89
	3/1/1994	--	92.27	92.25	0.02	51.64	143.89
	6/1/1994	--	90.68	90.67	0.01	53.22	143.89
	9/1/1994	--	89.61	89.60	0.01	54.29	143.89
	12/1/1994	--	89.41	ND	0	54.48	143.89
	3/1/1995	--	89.03	ND	0	54.86	143.89
	9/1/1995	--	87.47	ND	0	56.42	143.89
	12/1/1995	--	87.38	ND	0	56.51	143.89
	7/1/1996	--	86.53	ND	0	57.36	143.89
	12/1/1996	--	87.03	ND	0	56.86	143.89
	1/1/1998	--	86.39	ND	0	57.50	143.89
	8/1/1998	--	85.38	ND	0	58.51	143.89
	1/1/1999	--	85.72	ND	0	58.17	143.89
	7/1/1999	--	86.30	ND	0	57.59	143.89
	1/1/2000	--	88.54	ND	0	55.35	143.89
	7/1/2000	--	90.60	ND	0	53.29	143.89
	2/1/2001	--	91.81	ND	0	52.08	143.89
	7/1/2001	--	91.76	ND	0	52.13	143.89

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-203	5/1/2002	--	92.96	ND	0	50.93	143.89
	9/1/2002	--	93.62	ND	0	50.27	143.89
	6/28/2004	107.00	96.93	ND	0	46.96	143.89
MW-204*	6/1/1988	--	94.95	ND	0	45.19	140.14
	9/1/1988	--	95.43	ND	0	44.71	140.14
	12/1/1988	--	96.57	ND	0	43.57	140.14
	3/1/1989	--	97.53	ND	0	42.61	140.14
	6/1/1989	--	97.68	ND	0	42.46	140.14
	9/1/1989	--	98.00	ND	0	42.14	140.14
	12/1/1989	--	98.70	ND	0	41.44	140.14
	3/1/1990	--	99.19	ND	0	40.95	140.14
	6/1/1990	--	98.95	ND	0	41.19	140.14
	9/1/1990	--	99.08	ND	0	41.06	140.14
	12/1/1990	--	99.50	ND	0	40.64	140.14
	3/1/1991	--	98.61	ND	0	41.53	140.14
	6/1/1991	--	97.85	ND	0	42.29	140.14
	9/1/1991	--	97.59	ND	0	42.55	140.14
	12/1/1991	--	97.50	ND	0	42.64	140.14
	3/1/1992	--	96.45	ND	0	43.69	140.14
	6/1/1992	--	95.07	ND	0	45.07	140.14
	9/1/1992	--	94.91	ND	0	45.23	140.14
	12/1/1992	--	95.08	ND	0	45.06	140.14
	3/1/1993	--	94.03	ND	0	46.11	140.14
	5/1/1993	--	91.83	ND	0	48.31	140.14
	9/1/1993	--	89.56	89.55	0.01	50.59	140.14
	11/1/1993	--	88.10	88.09	0.01	52.05	140.14
	3/1/1994	--	85.90	85.89	0.01	54.25	140.14
	6/1/1994	--	84.09	ND	0	56.05	140.14
	9/1/1994	--	83.71	83.70	0.01	56.44	140.14
	12/1/1994	--	84.31	ND	0	55.83	140.14
	3/1/1995	--	83.76	ND	0	56.38	140.14
	9/1/1995	--	81.98	ND	0	58.16	140.14
	12/1/1995	--	82.23	ND	0	57.91	140.14
	7/1/1996	--	81.50	ND	0	58.64	140.14
	12/1/1996	--	82.42	ND	0	57.72	140.14
	1/1/1998	--	81.69	ND	0	58.45	140.14
	8/1/1998	--	80.57	ND	0	59.57	140.14
	1/1/1999	--	80.95	ND	0	59.19	140.14
	7/1/1999	--	81.93	ND	0	58.21	140.14
	1/1/2000	--	84.80	ND	0	55.34	140.14
	7/1/2000	--	87.17	ND	0	52.97	140.14
	2/1/2001	--	88.29	ND	0	51.85	140.14
	7/1/2001	--	87.93	ND	0	52.21	140.14
	5/1/2002	--	89.28	ND	0	50.86	140.14
	9/1/2002	--	90.80	ND	0	49.34	140.14
	6/28/2004	99.50	96.39	ND	0	43.75	140.14

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-205	6/1/1988	--	90.15	ND	0	48.02	138.17
	9/1/1988	--	90.67	ND	0	47.50	138.17
	12/1/1988	--	91.92	ND	0	46.25	138.17
	3/1/1989	--	92.88	ND	0	45.29	138.17
	6/1/1989	--	92.80	ND	0	45.37	138.17
	9/1/1989	--	93.20	ND	0	44.97	138.17
	12/1/1989	--	94.05	ND	0	44.12	138.17
	3/1/1990	--	94.20	ND	0	43.97	138.17
	6/1/1990	--	94.12	ND	0	44.05	138.17
	9/1/1990	--	93.85	ND	0	44.32	138.17
	12/1/1990	--	94.80	ND	0	43.37	138.17
	3/1/1991	--	93.49	ND	0	44.68	138.17
	6/1/1991	--	92.64	ND	0	45.53	138.17
	9/1/1991	--	92.45	ND	0	45.72	138.17
	12/1/1991	--	92.65	ND	0	45.39	138.04
	3/1/1992	--	90.92	ND	0	47.12	138.04
	6/1/1992	--	89.59	ND	0	48.45	138.04
	9/1/1992	--	89.61	ND	0	48.43	138.04
	12/1/1992	--	89.65	ND	0	48.39	138.04
	3/1/1993	--	88.60	ND	0	49.44	138.04
	5/1/1993	--	85.92	ND	0	52.12	138.04
	9/1/1993	--	83.56	83.55	0.01	54.49	138.04
	11/1/1993	--	82.00	ND	0	56.04	138.04
	3/1/1994	--	79.55	79.54	0.01	58.50	138.04
	6/1/1994	--	77.75	77.74	0.01	60.30	138.04
	9/1/1994	--	77.80	77.79	0.01	60.25	138.04
	12/1/1994	--	78.76	ND	0	59.28	138.04
	3/1/1995	--	77.80	ND	0	60.24	138.04
	9/1/1995	--	75.91	ND	0	62.13	138.04
	12/1/1995	--	76.28	ND	0	61.76	138.04
	7/1/1996	--	75.74	ND	0	62.30	138.04
	12/1/1996	--	76.09	ND	0	61.95	138.04
	1/1/1998	--	75.26	ND	0	62.78	138.04
	8/1/1998	--	73.96	ND	0	64.08	138.04
	1/1/1999	--	74.59	ND	0	63.45	138.04
	7/1/1999	--	75.95	ND	0	62.09	138.04
	1/1/2000	--	79.45	ND	0	58.59	138.04
	7/1/2000	--	81.60	ND	0	56.44	138.04
	2/1/2001	--	82.57	ND	0	55.47	138.04
	7/1/2001	--	82.01	ND	0	56.03	138.04
	5/1/2002	--	83.52	ND	0	54.52	138.04
	9/1/2002	--	85.68	ND	0	52.36	138.04
	6/28/2004	103.00	91.31	ND	0	46.73	138.04
MW-206 Abandoned	6/1/1988	--	92.37	ND	0	37.56	129.93
	9/1/1988	--	93.37	ND	0	36.56	129.93
	12/1/1988	--	94.93	ND	0	35.00	129.93
	3/1/1989	--	95.20	ND	0	34.73	129.93
	6/1/1989	--	95.55	ND	0	34.38	129.93

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-206 Abandoned	9/1/1989	--	96.88	ND	0	33.05	129.93
	12/1/1989	--	94.75	ND	0	35.18	129.93
	3/1/1990	--	97.75	ND	0	32.18	129.93
	6/1/1990	--	97.48	ND	0	32.45	129.93
	9/1/1990	--	98.02	ND	0	31.91	129.93
	12/1/1990	--	98.64	ND	0	31.29	129.93
	3/1/1991	--	96.92	ND	0	33.01	129.93
	6/1/1991	--	96.11	ND	0	33.82	129.93
	9/1/1991	--	96.41	ND	0	33.52	129.93
	12/1/1991	--	96.12	ND	0	33.81	129.93
	3/1/1992	--	94.32	ND	0	35.61	129.93
	6/1/1992	--	93.45	ND	0	36.48	129.93
	9/1/1992	--	93.97	ND	0	35.96	129.93
	12/1/1992	--	93.50	ND	0	36.43	129.93
	3/1/1993	--	91.91	ND	0	38.02	129.93
	5/1/1993	--	89.60	ND	0	40.33	129.93
	9/1/1993	--	87.91	87.90	0.01	42.03	129.93
	12/1/1993	--	86.43	86.41	0.02	43.52	129.93
	3/1/1994	--	82.89	82.88	0.01	47.05	129.93
	6/1/1994	--	81.30	81.29	0.01	48.64	129.93
	9/1/1994	--	81.81	81.80	0.01	48.13	129.93
	12/1/1994	--	82.00	ND	0	47.93	129.93
	3/1/1995	--	80.33	ND	0	49.60	129.93
	9/1/1995	--	79.68	ND	0	50.25	129.93
	12/1/1995	--	79.65	ND	0	50.28	129.93
	7/1/1996	--	78.57	ND	0	51.36	129.93
	12/1/1996	--	79.40	ND	0	50.53	129.93
	1/1/1998	--	78.40	ND	0	51.53	129.93
	8/1/1998	--	--	--	--	--	Well Damaged
	1/1/1999	--	--	--	--	--	Well Destroyed
MW-501 Abandoned	6/1/1988	--	92.46	91.16	1.3	37.28	128.70
	9/1/1988	--	94.39	93.03	1.36	35.40	128.70
	12/1/1988	--	94.41	93.71	0.7	34.85	128.70
	3/1/1989	--	94.81	94.06	0.75	34.49	128.70
	6/1/1989	--	94.62	93.81	0.81	34.73	128.70
	9/1/1989	--	96.17	95.21	0.96	33.30	128.70
	12/1/1989	--	97.15	96.32	0.83	32.21	128.70
	3/1/1990	--	97.62	96.80	0.82	31.74	128.70
	6/1/1990	--	96.02	95.27	0.75	33.28	128.70
	9/1/1990	--	97.80	96.85	0.95	31.66	128.70
	12/1/1990	--	98.82	97.64	1.18	30.82	128.70
	3/1/1991	--	96.83	96.25	0.58	32.33	128.70
	6/1/1991	--	95.94	95.44	0.5	33.16	128.70
	9/1/1991	--	96.12	95.62	0.5	32.98	128.70
	12/1/1991	--	95.91	95.44	0.47	33.17	128.70
	3/1/1992	--	94.14	93.93	0.21	34.73	128.70
	6/1/1992	--	92.98	92.97	0.01	35.73	128.70
	9/1/1992	--	93.42	93.25	0.17	35.42	128.70

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-501 Abandoned	12/1/1992	--	92.99	92.85	0.14	35.82	128.70
	3/1/1993	--	91.60	ND	0	37.10	128.70
	5/1/1993	--	89.45	ND	0	39.25	128.70
	9/1/1993	--	87.77	87.76	0.01	40.94	128.70
	12/1/1993	--	86.25	86.24	0.01	42.46	128.70
	3/1/1994	--	83.19	83.18	0.01	45.52	128.70
	6/1/1994	--	81.35	81.34	0.01	47.36	128.70
	9/1/1994	--	81.27	81.26	0.01	47.44	128.70
	12/1/1994	--	81.50	81.49	0.01	47.21	128.70
	3/1/1995	--	80.23	ND	0	48.47	128.70
	9/1/1995	--	76.04	ND	0	52.66	128.70
	12/1/1995	--	79.09	ND	0	49.61	128.70
	7/1/1996	--	77.84	ND	0	50.86	128.70
	12/1/1996	--	78.67	ND	0	50.03	128.70
	1/1/1998	--	--	--	--	--	128.70
	8/1/1998	--	--	--	--	--	Well Damaged
	1/1/1999	--	--	--	--	--	Well Damaged
MW-501A	7/1/1999	--	77.70	ND	0	--	Not Surveyed
	1/1/2000	--	81.83	ND	0	--	Not Surveyed
	7/1/2000	--	83.24	ND	0	--	Not Surveyed
	2/1/2001	--	84.48	ND	0	--	Not Surveyed
	7/1/2001	--	84.33	ND	0	--	Not Surveyed
	5/1/2002	--	85.76	ND	0	--	Not Surveyed
	9/1/2002	--	87.96	ND	0	--	Not Surveyed
	6/28/2004	95.00			Well was not located for sampling		
MW-502	6/1/1988	--	94.00	ND	0	37.19	131.19
	9/1/1988	--	94.95	ND	0	36.24	131.19
	12/1/1988	--	96.35	ND	0	34.84	131.19
	3/1/1989	--	96.75	ND	0	34.44	131.19
	6/1/1989	--	97.27	94.14	3.13	36.42	131.19
	9/1/1989	--	99.08	96.25	2.83	34.37	131.19
	12/1/1989	--	100.40	98.65	1.75	32.19	131.19
	3/1/1990	--	100.96	99.23	1.73	31.61	131.19
	6/1/1990	--	99.16	97.77	1.39	33.14	131.19
	6/1/1991	--	97.95	97.21	0.74	33.46	130.82
	9/1/1991	--	98.20	97.46	0.74	33.21	130.82
	12/1/1991	--	97.97	97.19	0.78	33.47	130.82
	3/1/1992	--	96.00	95.57	0.43	35.16	130.82
	6/1/1992	--	94.95	94.65	0.3	36.11	130.82
	9/1/1992	--	95.51	95.11	0.4	35.63	130.82
	12/1/1992	--	95.14	94.87	0.27	35.90	130.82
	3/1/1993	--	93.30	ND	0	37.52	130.82
	5/1/1993	--	91.13	ND	0	39.69	130.82
	9/1/1993	--	89.45	89.44	0.01	41.38	130.82
	12/1/1993	--	87.94	87.93	0.01	42.89	130.82
	3/1/1994	--	84.70	84.69	0.01	46.13	130.82
	6/1/1994	--	82.99	82.98	0.01	47.84	130.82
	9/1/1994	--	83.03	ND	0	47.79	130.82

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-502	12/1/1994	--	83.40	ND	0	47.42	130.82
	3/1/1995	--	81.96	ND	0	48.86	130.82
	9/1/1995	--	81.05	ND	0	49.77	130.82
	12/1/1995	--	81.02	ND	0	49.80	130.82
	7/1/1996	--	79.83	ND	0	50.99	130.82
	12/1/1996	--	80.68	ND	0	50.14	130.82
	1/1/1998	--	79.78	ND	0	51.04	130.82
	8/1/1998	--	78.98	ND	0	51.84	130.82
	1/1/1999	--	76.73	ND	0	51.57	128.30
	7/1/1999	--	76.90	ND	0	51.40	128.30
	1/1/2000	--	81.56	ND	0	46.74	128.30
	7/1/2000	--	83.48	ND	0	44.82	128.30
	2/1/2001	--	84.42	ND	0	43.88	128.30
	7/1/2001	--	84.32	ND	0	43.98	128.30
	5/1/2002	--	85.70	ND	0	42.60	128.30
	9/1/2002	--	88.22	ND	0	40.08	128.30
	6/29/2004	104.00	93.31	93.26	0.05	35.03	128.30
MW-503 Abandoned	6/1/1988	--	92.55	ND	0	38.88	131.43
	9/1/1988	--	93.26	ND	0	38.17	131.43
	12/1/1988	--	94.74	ND	0	36.69	131.43
	3/1/1989	--	95.18	ND	0	36.25	131.43
	6/1/1989	--	95.50	ND	0	35.93	131.43
	9/1/1989	--	96.30	ND	0	35.13	131.43
	12/1/1989	--	97.16	ND	0	34.27	131.43
	3/1/1990	--	97.54	ND	0	33.89	131.43
	6/1/1990	--	97.30	ND	0	34.13	131.43
	9/1/1990	--	97.70	ND	0	33.73	131.43
	12/1/1990	--	98.27	ND	0	33.16	131.43
	3/1/1991	--	96.64	ND	0	34.79	131.43
	6/1/1991	--	95.79	ND	0	35.64	131.43
	9/1/1991	--	96.05	ND	0	35.38	131.43
	12/1/1991	--	95.80	ND	0	35.63	131.43
	3/1/1992	--	93.98	ND	0	37.45	131.43
	6/1/1992	--	93.01	ND	0	38.42	131.43
	9/1/1992	--	93.52	ND	0	37.91	131.43
	12/1/1992	--	93.11	ND	0	38.32	131.43
	3/1/1993	--	91.67	ND	0	39.76	131.43
	5/1/1993	--	88.78	ND	0	42.65	131.43
	9/1/1993	--	87.47	87.45	0.02	43.98	131.43
	12/1/1993	--	86.02	86.00	0.02	45.43	131.43
	3/1/1994	--	82.54	82.53	0.01	48.90	131.43
	6/1/1994	--	80.95	80.94	0.01	50.49	131.43
	9/1/1994	--	81.41	81.40	0.01	50.03	131.43
	12/1/1994	--	81.75	ND	0	49.68	131.43
	3/1/1995	--	80.10	ND	0	51.33	131.43

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-503 Abandoned	9/1/1995	--	79.34	ND	0	52.09	131.43
	12/1/1995	--	79.37	ND	0	52.06	131.43
	7/1/1996	--	78.35	ND	0	53.08	131.43
	12/1/1996	--	79.31	ND	0	52.12	131.43
	1/1/1998	--	78.24	ND	0	53.19	131.43
	8/1/1998	--	77.45	ND	0	53.98	131.43
	1/1/1999	--	--	--	--	--	Well Destroyed
MW-503B	2/1/1999	--	77.05	ND	0	52.91	129.96
	7/1/1999	--	78.64	ND	0	51.32	129.96
	1/1/2000	--	82.58	ND	0	47.38	129.96
	7/1/2000	--	84.17	ND	0	45.79	129.96
	2/1/2001	--	85.06	ND	0	44.90	129.96
	7/1/2001	--	84.98	ND	0	44.98	129.96
	5/1/2002	--	86.32	ND	0	43.64	129.96
	9/1/2002	--	89.14	ND	0	40.82	129.96
	6/28/2004	109.00	93.97	ND	0	35.99	129.96
MW-504**	6/1/1988	--	92.56	90.73	1.83	42.73	133.83
	9/1/1988	--	93.98	92.41	1.57	41.11	133.83
	12/1/1988	--	94.70	92.83	1.87	40.63	133.83
	3/1/1989	--	96.25	93.50	2.75	39.78	133.83
	6/1/1989	--	94.36	92.16	2.2	41.23	133.83
	9/1/1989	--	99.21	97.15	2.06	36.27	133.83
	12/1/1989	--	96.80	95.45	1.35	38.11	133.83
	3/1/1990	--	97.10	95.72	1.38	37.83	133.83
	6/1/1990	--	95.75	95.13	0.62	38.58	133.83
	12/1/1990	--	97.47	96.31	1.16	37.97	134.51
	6/1/1991	--	95.20	ND	0	39.31	134.51
	9/1/1991	--	95.19	ND	0	39.32	134.51
	12/1/1991	--	95.08	ND	0	39.43	134.51
	3/1/1992	--	95.55	ND	0	38.96	134.51
	6/1/1992	--	92.28	ND	0	42.23	134.51
	9/1/1992	--	92.47	ND	0	42.04	134.51
	12/1/1992	--	92.32	ND	0	42.19	134.51
	3/1/1993	--	91.09	ND	0	43.42	134.51
	5/1/1993	--	88.78	ND	0	45.73	134.51
	9/1/1993	--	86.64	86.63	0.01	47.88	134.51
	11/1/1993	--	85.10	ND	0	49.41	134.51
	3/1/1994	--	82.26	82.25	0.01	52.26	134.51
	6/1/1994	--	80.43	ND	0	54.08	134.51
	9/1/1994	--	80.59	80.58	0.01	53.93	134.51
	12/1/1994	--	81.14	ND	0	53.37	134.51
	3/1/1995	--	80.06	ND	0	54.45	134.51
	9/1/1995	--	78.55	ND	0	55.96	134.51
	12/1/1995	--	78.76	ND	0	55.75	134.51
	7/1/1996	--	77.92	ND	0	56.59	134.51

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-504**	12/1/1996	--	79.15	78.85	0.3	55.60	134.51
	1/1/1998	--	78.00	77.98	0.02	56.53	134.51
	8/1/1998	--	77.00	76.98	0.02	57.53	134.51
	1/1/1999	--	77.56	77.46	0.1	57.03	134.51
	7/1/1999	--	79.12	78.63	0.49	55.78	134.51
	1/1/2000	--	82.88	82.20	0.68	52.17	134.51
	7/1/2000	--	84.90	83.96	0.94	50.36	134.51
	2/1/2001	--	--	86.24	--	--	134.51
	7/1/2001	--	86.47	84.58	1.89	49.55	134.51
	5/1/2002	--	87.20	86.10	1.1	48.19	134.51
	9/1/2002	--	89.38	88.35	1.03	45.95	134.51
	6/29/2004	118.00	94.56	93.65	0.91	40.68	134.51
	9/1/1990	--	91.48	90.31	1.17	29.51	120.05
MW-600 Abandoned	12/1/1990	--	92.43	90.79	1.64	28.93	120.05
	3/1/1991	--	89.88	89.00	0.88	30.87	120.05
	6/1/1991	--	89.35	88.45	0.9	31.42	120.05
	9/1/1991	--	89.64	88.76	0.88	31.11	120.05
	12/1/1991	--	88.91	88.58	0.33	31.40	120.05
	3/1/1992	--	87.09	86.89	0.2	33.12	120.05
	6/1/1992	--	86.26	86.12	0.14	33.90	120.05
	9/1/1992	--	86.90	86.69	0.21	33.32	120.05
	12/1/1992	--	86.02	86.00	0.02	34.05	120.05
	3/1/1993	--	84.63	ND	0	35.42	120.05
	5/1/1993	--	82.52	ND	0	37.53	120.05
	9/1/1993	--	80.99	80.98	0.01	39.07	120.05
	12/1/1993	--	79.49	79.48	0.01	40.57	120.05
	3/1/1994	--	76.01	76.00	0.01	44.05	120.05
	6/1/1994	--	74.40	74.39	0.01	45.66	120.05
	9/1/1994	--	74.73	74.72	0.01	45.33	120.05
	12/1/1994	--	74.90	74.84	0.06	45.20	120.05
	3/1/1995	--	73.65	73.03	0.62	46.90	120.05
	9/1/1995	--	73.69	73.30	0.39	46.67	120.05
	12/1/1995	--	72.02	ND	0	48.03	120.05
	7/1/1996	--	73.55	70.59	2.96	48.87	120.05
	12/1/1996	--	73.90	71.35	2.55	48.19	120.05
	1/1/1998	--	75.05	69.67	5.38	49.30	120.05
	8/1/1998	--	74.50	72.70	1.8	46.99	120.05
	1/1/1999	--	73.72	69.60	4.12	49.63	120.05
MW-600A	7/1/1999	--	77.55	77.32	0.23	42.97	120.34
	1/1/2000	--	77.80	76.77	1.03	43.36	120.34
	7/1/2000	--	78.99	78.59	0.4	42.07	120.34

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-600A	2/1/2001	--	79.87	79.39	0.48	41.33	120.34
	7/1/2001	--	80.38	79.82	0.56	40.97	120.34
	5/1/2002	--	83.20	80.56	2.64	39.25	120.34
	9/1/2002	--	84.58	83.62	0.96	36.53	120.34
	6/29/2004	100.00	91.02	87.97	3.05	31.76	120.34
MW-601 Abandoned	9/1/1990	--	96.64	95.89	0.75	28.99	125.03
	12/1/1990	--	97.01	96.52	0.49	28.41	125.03
	3/1/1991	--	94.84	ND	0	30.19	125.03
	6/1/1991	--	94.27	ND	0	30.76	125.03
	9/1/1991	--	94.54	ND	0	30.49	125.03
	12/1/1991	--	94.30	ND	0	30.73	125.03
	3/1/1992	--	92.66	ND	0	32.37	125.03
	6/1/1992	--	91.81	ND	0	33.22	125.03
	9/1/1992	--	92.80	92.28	0.52	32.65	125.03
	12/1/1992	--	91.78	ND	0	33.25	125.03
	3/1/1993	--	90.38	ND	0	34.65	125.03
	5/1/1993	--	88.35	ND	0	36.68	125.03
	9/1/1993	--	86.76	86.75	0.01	38.28	125.03
	12/1/1993	--	85.36	85.35	0.01	39.68	125.03
	3/1/1994	--	82.01	82.00	0.01	43.03	125.03
	6/1/1994	--	80.30	80.25	0.05	44.77	125.03
	9/1/1994	--	80.50	80.40	0.1	44.61	125.03
	12/1/1994	--	80.65	80.52	0.13	44.48	125.03
	3/1/1995	--	79.08	78.98	0.1	46.03	125.03
	9/1/1995	--	78.36	78.11	0.25	46.87	125.03
	12/1/1995	--	78.07	ND	0	46.96	125.03
	7/1/1996	--	77.03	76.75	0.28	48.22	125.03
	12/1/1996	--	77.57	ND	0	47.46	125.03
	1/1/1998	--	76.79	76.40	0.39	48.55	125.03
	8/1/1998	--	76.29	76.05	0.24	48.93	125.03
	1/1/1999	--	76.62	75.95	0.67	48.95	125.03
MW-601 A	7/1/1999	--	77.39	77.36	0.03	49.16	126.53
	1/1/2000	--	81.03	ND	0	45.50	126.53
	7/1/2000	--	82.72	82.70	0.02	43.83	126.53
	2/1/2001	--	83.73	83.71	0.02	42.82	126.53
	7/1/2001	--	84.07	ND	0	42.46	126.53
	5/1/2002	--	85.42	ND	0	41.11	126.53
	9/1/2002	--	87.91	ND	0	38.62	126.53
	6/29/2004	100.00	Dry	ND	0	Dry	126.53
MW-603	7/1/1996	--	72.01	ND	0	46.53	118.54
	12/1/1996	--	72.39	ND	0	46.15	118.54
	1/1/1998	--	71.33	ND	0	47.21	118.54
	8/1/1998	--	71.12	ND	0	47.42	118.54
	1/1/1999	--	77.71	ND	0	40.83	118.54
	7/1/1999	--	72.97	ND	0	45.57	118.54
	1/1/2000	--	76.87	ND	0	41.67	118.54
	7/1/2000	--	78.00	ND	0	40.54	118.54
	2/1/2001	--	78.48	ND	0	40.06	118.54

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-603	7/1/2001	--	79.14	ND	0	39.40	118.54
	5/1/2002	--	80.21	ND	0	38.33	118.54
	9/1/2002	--	83.86	ND	0	34.68	118.54
	6/29/2004	100.00	88.20	ND	0	30.34	118.54
MW-604	7/1/1996	--	88.79	ND	0	49.37	138.16
	12/1/1996	--	89.57	ND	0	48.59	138.16
	1/1/1998	--	88.61	ND	0	49.55	138.16
	8/1/1998	--	87.55	ND	0	50.61	138.16
	1/1/1999	--	87.88	ND	0	50.28	138.16
	7/1/1999	--	88.53	ND	0	49.63	138.16
	1/1/2000	--	92.10	ND	0	46.06	138.16
	7/1/2000	--	94.21	ND	0	43.95	138.16
	2/1/2001	--	95.65	ND	0	42.51	138.16
	7/1/2001	--	95.42	ND	0	42.74	138.16
	5/1/2002	--	96.79	ND	0	41.37	138.16
	9/1/2002	--	98.22	ND	0	39.94	138.16
	6/28/2004	103.00	102.32	ND	0	35.84	138.16
	7/1/1996	--	74.03	ND	0	40.51	114.54
MW-605	12/1/1996	--	74.06	ND	0	40.48	114.54
	1/1/1998	--	73.19	ND	0	41.35	114.54
	8/1/1998	--	73.18	ND	0	41.36	114.54
	1/1/1999	--	72.52	ND	0	42.02	114.54
	7/1/1999	--	74.62	ND	0	39.92	114.54
	1/1/2000	--	78.58	ND	0	35.96	114.54
	7/1/2000	--	79.54	ND	0	35.00	114.54
	2/1/2001	--	79.99	ND	0	34.55	114.54
	7/1/2001	--	80.83	ND	0	33.71	114.54
	5/1/2002	--	81.84	ND	0	32.70	114.54
	9/1/2002	--	85.70	ND	0	28.84	114.54
	6/28/2004	95.00	89.55	ND	0	24.99	114.54
MW-606	7/1/1996	--	77.19	ND	0	36.70	113.89
	12/1/1996	--	77.50	ND	0	36.39	113.89
	1/1/1998	--	75.92	ND	0	37.97	113.89
	8/1/1998	--	75.93	ND	0	37.96	113.89
	1/1/1999	--	75.26	ND	0	38.63	113.89
	7/1/1999	--	77.19	ND	0	36.70	113.89
	1/1/2000	--	80.87	ND	0	33.02	113.89
	7/1/2000	--	82.12	ND	0	31.77	113.89
	2/1/2001	--	82.70	ND	0	31.19	113.89
	7/1/2001	--	83.55	ND	0	30.34	113.89
	5/1/2002	--	84.69	ND	0	29.20	113.89
	9/1/2002	--	88.55	ND	0	25.34	113.89
	6/28/2004	100.00	92.01	ND	0	21.88	113.89
MW-607	7/1/1996	--	86.88	ND	0	39.15	126.03
	12/1/1996	--	87.56	ND	0	38.47	126.03
	1/1/1998	--	86.50	ND	0	39.53	126.03
	8/1/1998	--	85.64	ND	0	40.39	126.03
	1/1/1999	--	85.88	ND	0	40.15	126.03

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-607	7/1/1999	--	86.52	ND	0	39.51	126.03
	1/1/2000	--	90.40	ND	0	35.63	126.03
	7/1/2000	--	92.02	ND	0	34.01	126.03
	2/1/2001	--	93.53	ND	0	32.50	126.03
	7/1/2001	--	93.58	ND	0	32.45	126.03
	5/1/2002	--	95.30	ND	0	30.73	126.03
	9/1/2002	--	98.05	ND	0	27.98	126.03
	6/28/2004	107.00	102.29	ND	0	23.74	126.03
	12/1/1996	--	90.10	ND	0	52.79	142.89
	1/1/1998	--	89.28	ND	0	53.61	142.89
W-1	8/1/1998	--	88.19	ND	0	54.70	142.89
	1/1/1999	--	88.62	ND	0	54.27	142.89
	7/1/1999	--	89.25	ND	0	53.64	142.89
	1/1/2000	--	91.80	ND	0	51.09	142.89
	7/1/2000	--	94.00	ND	0	48.89	142.89
	2/1/2001	--	95.33	ND	0	47.56	142.89
	7/1/2001	--	95.32	ND	0	47.57	142.89
	5/1/2002	--	96.70	ND	0	46.19	142.89
	9/1/2002	--	97.77	ND	0	45.12	142.89
	6/28/2004	129.00	100.66	ND	0	42.23	142.89
	12/1/1996	--	88.72	ND	0	50.59	139.31
	1/1/1998	--	87.95	ND	0	51.36	139.31
W-2 Abandoned	8/1/1998	--	86.95	ND	0	52.36	139.31
	12/1/1996	--	90.98	ND	0	45.13	136.11
W-3 Abandoned	1/1/1998	--	89.95	ND	0	46.16	136.11
	8/1/1998	--	91.14	ND	0	32.86	124.00
W-3A**	1/1/1999	--	91.55	ND	0	32.45	124.00
	7/1/1999	--	92.21	ND	0	31.79	124.00
	1/1/2000	--	95.65	ND	0	28.35	124.00
	7/1/2000	--	97.10	97.14	0.04	26.93	124.00
	2/1/2001	--	98.26	ND	0	25.74	124.00
	7/1/2001	--	98.20	ND	0	25.80	124.00
	5/1/2002	--	100.39	99.28	1.11	24.50	124.00
	9/1/2002	--	102.59	100.80	1.79	22.84	124.00
	6/29/2004	115.00	102.71	101.30	1.41	22.42	124.00
	12/1/1996	--	92.88	ND	0	49.50	142.38
W-4	1/1/1998	--	92.01	ND	0	50.37	142.38
	8/1/1998	--	90.90	ND	0	51.48	142.38
	1/1/1999	--	91.31	ND	0	51.07	142.38
	7/1/1999	--	91.90	ND	0	50.48	142.38
	1/1/2000	--	94.66	ND	0	47.72	142.38
	7/1/2000	--	96.88	ND	0	45.50	142.38

**TABLE D1-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
W-4	2/1/2001	--	98.20	ND	0	44.18	142.38
	7/1/2001	--	98.04	ND	0	44.34	142.38
	5/1/2002	--	99.43	ND	0	42.95	142.38
	9/1/2002	--	100.60	ND	0	41.78	142.38
	6/28/2004	132.00	102.13	ND	0	40.25	142.38
EW-1	8/1/1998	--	85.99	ND	0	26.41	112.40
	1/1/1999	--	86.22	ND	0	26.18	112.40
	7/1/1999	--	86.51	ND	0	25.89	112.40
	1/1/2000	--	88.29	88.21	0.08	24.17	112.40
	7/1/2001	--	93.92	91.31	2.61	20.57	112.40
	5/1/2002	--	94.39	92.78	1.61	19.30	112.40
	9/1/2002	--	95.49	93.38	2.11	18.60	112.40
	6/29/2004	113.50	98.33	96.15	2.18	15.81	112.40

**NOTES:**

Table reproduced from *Revised Master Work Plan* by Versar, Inc., dated January, 2000, with additional data added.

Groundwater elevation = (top of casing elevation - depth to water) + (0.8 x hydrocarbon thickness) for Haley & Aldrich, Inc. and BBL, Inc. sampling events

Groundwater elevation correction for the presence of free product was performed assuming a specific gravity of 0.8 for the petroleum product

NA- Not applicable

NM- Not measured

-- Data not listed in former reports

ND - Not detected

\* - Damage to casing of monitoring well MW-204 was discovered in October 2005; casing above ground was cut in order to collect groundwater sample; top of casing has not yet been resurveyed

\*\* - Sheen developed during sampling of monitoring wells MW-504 and W-3A

\*\*\* - Former production wells W-7 and W-8 were never surveyed and are not used in calculating groundwater gradients (screened in a deeper aquifer)

msl- Mean sea level

**TABLE D1-B**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (ARCADIS BBL)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
EW-1*	10/4/2005	NM	100.12	98.40	1.72	13.66	112.40
	2/13/2006	NM	99.55	98.89	0.66	13.38	112.40
	8/2/2006	112.37	98.65	ND	Sheen	13.75	112.40
	11/6/2006	112.32	98.42	ND	0	13.98	112.40
	2/5/2007	112.29	98.16	ND	0	14.24	112.40
	5/7/2007	112.28	97.88	ND	0	14.52	112.40
MW-101	10/4/2005	92.70	Dry	ND	0	Dry	135.23
	2/13/2006	90.20	Dry	ND	0	Dry	135.23
	7/31/2006	90.22	88.61	ND	0	46.62	135.23
	11/6/2006	90.31	88.52	ND	0	46.71	135.23
	2/5/2007	90.65	88.20	ND	0	47.03	135.23
	5/7/2007	90.30	87.63	ND	0	47.60	135.23
MW-103	10/4/2005	94.55	Dry	ND	0	Dry	136.95
	2/13/2006	94.38	Dry	ND	0	Dry	136.95
	7/31/2006	94.58	93.32	ND	0	43.63	136.95
	11/6/2006	94.81	93.03	ND	0	43.92	136.95
	2/5/2007	94.31	92.83	ND	0	44.12	136.95
	5/7/2007	94.81	92.29	ND	0	44.66	136.95
MW-104A	10/4/2005	97.60	89.85	ND	0	51.31	141.16
	2/13/2006	98.05	89.66	ND	0	51.50	141.16
	7/31/2006	Well temporarily capped/covered below ground surface for temporary roadway. Will be extended above surface following road use completion.					
	11/6/2006	Well temporarily capped/covered below ground surface for temporary roadway. Will be extended above surface following road use completion.					
	2/5/2007	100.20	88.35	ND	0	55.04	143.39
	5/7/2007	99.93	88.09	ND	0	55.30	143.39
MW-105	10/4/2005	100.15	91.03	ND	0	47.60	138.63
	2/13/2006	100.10	89.95	ND	0	48.68	138.63
	7/31/2006	100.04	87.99	ND	0	50.64	138.63
	11/6/2006	100.25	87.91	ND	0	50.72	138.63
	2/5/2007	99.22	87.66	ND	0	50.97	138.63
	5/7/2007	100.32	87.11	ND	0	51.52	138.63

**TABLE D1-B**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (ARCADIS BBL)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-106A	10/4/2005	Well re-installed following Feb. 2006 sampling event					148.41
	2/13/2006	Well re-installed following Feb. 2006 sampling event					148.41
	8/2/2006	110.22	96.72	ND	0	55.79	152.51
	11/6/2006	110.28	96.17	ND	0	56.34	152.51
	2/5/2007	110.08	95.9	ND	0	56.61	152.51
	5/7/2007	110.21	95.51	ND	0	57.00	152.51
MW-107A	10/4/2005	Well re-installed following Feb. 2006 sampling event					148.93
	2/13/2006	Well re-installed following Feb. 2006 sampling event					148.93
	8/2/2006	109.79	96.88	ND	0	49.83	146.71
	11/6/2006	109.6	96.65	ND	0	50.06	146.71
	2/5/2007	109.69	96.41	ND	0	50.30	146.71
	5/7/2007	109.52	96.09	ND	0	50.62	146.71
MW-201	10/4/2005	101.52	93.07	ND	0	39.84	132.91
	2/13/2006	93.69	91.80	ND	0	41.11	132.91
	7/31/2006	93.79	89.88	ND	0	43.03	132.91
	11/6/2006	101.76	89.83	ND	0	43.08	132.91
	2/5/2007	100.95	89.34	ND	0	43.57	132.91
	5/7/2007	100.86	88.79	ND	0	44.12	132.91
MW-202	10/4/2005	92.59	Dry	ND	0	Dry	137.89
	2/13/2006	92.64	Dry	ND	0	Dry	137.89
	7/31/2006	92.81	Dry	ND	0	Dry	137.89
	11/6/2006	92.74	Dry	ND	0	Dry	137.89
	2/5/2007	92.68	Dry	ND	0	Dry	137.89
	5/7/2007	92.69	Dry	ND	0	Dry	137.89
MW-203	10/4/2005	Well re-installed following Feb. 2006 sampling event					143.89
	2/13/2006	Well re-installed following Feb. 2006 sampling event					143.89
	8/2/2006	102.55	94.12	ND	0	49.31	143.43
	11/6/2006	102.39	94	ND	0	49.43	143.43
	2/5/2007	102.43	93.84	ND	0	49.59	143.43
	5/7/2007	102.40	93.65	ND	0	49.78	143.43
MW-204**	10/4/2005	99.68	97.86	ND	0	42.28	140.14
	2/13/2006	96.72	95.24	ND	0	NA	NM
	7/31/2006	98.97	93.27	ND	0	NA	NM
	11/6/2006	98.67	92.99	ND	0	NA	NM
	2/5/2007	99.69	94.32	ND	0	47.86	142.18
	5/7/2007	99.63	93.79	ND	0	48.39	142.18

**TABLE D1-B**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (ARCADIS BBL)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-205	10/4/2005	98.25	92.00	ND	0	46.04	138.04
	2/13/2006	98.32	90.92	ND	0	47.12	138.04
	7/31/2006	98.43	88.99	ND	0	49.05	138.04
	11/6/2006	98.62	88.75	ND	0	49.29	138.04
	2/5/2007	98.31	88.52	ND	0	49.52	138.04
	5/7/2007	98.71	88.08	ND	0	49.96	138.04
MW-501A	10/4/2005	92.58	Dry	ND	0	Dry	NM
	2/13/2006	92.60	Dry	ND	0	Dry	NM
	7/31/2006	92.71	91.74	ND	0	NA	NM
	11/6/2006	93.13	91.65	ND	0	NA	NM
	2/5/2007	93.05	91.02	ND	0	NA	NM
	5/7/2007	93.21	90.39	ND	0	38.31	128.70
MW-502	10/4/2005	100.49	94.90	ND	0	33.40	128.30
	2/13/2006	100.56	93.40	ND	0	34.90	128.30
	7/31/2006	100.54	91.49	ND	0	36.81	128.30
	11/6/2006	100.78	91.46	ND	0	36.84	128.30
	2/5/2007	99.95	90.80	ND	0	37.50	128.30
	5/7/2007	100.68	90.15	ND	0	38.15	128.30
MW-503B	10/4/2005	108.60	95.34	ND	0	34.62	129.96
	2/13/2006	108.79	93.79	ND	0	36.17	129.96
	7/31/2006	108.88	91.93	ND	0	38.03	129.96
	11/6/2006	108.82	91.91	ND	0	38.05	129.96
	2/5/2007	108.79	91.28	ND	0	38.68	129.96
	5/7/2007	108.80	90.63	ND	0	39.33	129.96
MW-504*	10/4/2005	95.85	95.12	NM	NM	NM	134.51
	2/13/2006	95.95	93.80	ND	Sheen	40.71	134.51
	7/31/2006	95.90	91.81	ND	0	42.70	134.51
	11/6/2006	95.89	91.71	ND	Sheen	42.80	134.51
	2/5/2007	95.81	91.26	ND	0	43.25	134.51
	5/7/2007	96.30	90.69	ND	0	43.82	134.51
MW-600A	10/4/2005	NM	92.62	89.46	3.16	30.25	120.34
	2/14/2006	NM	91.15	87.92	3.23	31.77	120.34
	7/31/2006	NM	88.87	86.35	2.52	33.49	120.34
	11/6/2006	NM	89.28	86.26	3.02	33.48	120.34
	2/5/2007	NM	88.48	85.52	2.96	34.23	120.34
	5/7/2007	NM	85.61	85.49	0.12	34.83	120.34

**TABLE D1-B**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (ARCADIS BBL)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
MW-601A	10/4/2005	89.40	Dry	ND	0	Dry	126.53
	2/13/2006	89.65	Dry	ND	0	Dry	126.53
	7/31/2006	89.90	Dry	ND	0	Dry	126.53
	11/6/2006	84.91	Dry	ND	0	Dry	126.53
	2/5/2007	89.66	Dry	ND	0	Dry	126.53
	5/7/2007	89.66	Dry	ND	0	Dry	126.53
MW-603	10/4/2005	97.28	89.53	ND	0	29.01	118.54
	2/13/2006	96.90	88.49	ND	0	30.05	118.54
	7/31/2006	97.15	85.88	ND	0	32.66	118.54
	11/6/2006	96.98	85.97	ND	0	32.57	118.54
	2/5/2007	97.85	85.01	ND	0	33.53	118.54
	5/7/2007	97.68	84.24	ND	0	34.30	118.54
MW-604	10/4/2005	103.14	102.78	ND	0	35.38	138.16
	2/13/2006	103.25	Dry	ND	0	Dry	138.16
	7/31/2006	103.13	Dry	ND	0	Dry	138.16
	11/6/2006	103.26	102.35	ND	0	35.81	138.16
	2/5/2007	103.16	101.91	ND	0	36.25	138.16
	5/7/2007	103.20	101.28	ND	0	36.88	138.16
MW-605	10/4/2005	94.03	91.22	ND	0	23.32	114.54
	2/13/2006	94.00	88.91	ND	0	25.63	114.54
	7/31/2006	94.26	88.45	ND	0	26.09	114.54
	11/6/2006	94.06	87.54	ND	0	27.00	114.54
	2/5/2007	93.96	86.32	ND	0	28.22	114.54
	5/7/2007	92.90	85.54	ND	0	29.00	114.54
MW-606	10/4/2005	99.16	94.21	ND	0	19.68	113.89
	2/13/2006	99.30	91.98	ND	0	21.91	113.89
	7/31/2006	99.19	90.30	ND	0	23.59	113.89
	11/6/2006	99.00	90.61	ND	0	23.28	113.89
	2/5/2007	99.21	89.30	ND	0	24.59	113.89
	5/7/2007	99.19	88.40	ND	0	25.49	113.89
MW-607	10/4/2005	106.80	104.78	ND	0	21.25	126.03
	2/13/2006	106.61	103.34	ND	0	22.69	126.03
	7/31/2006	106.96	101.07	ND	0	24.96	126.03
	11/6/2006	106.95	101.43	ND	0	24.60	126.03
	2/5/2007	106.19	100.57	ND	0	25.46	126.03
	5/7/2007	106.87	99.61	ND	0	26.42	126.03

**TABLE D1-B**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (ARCADIS BBL)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
W-1	10/4/2005	129.63	102.95	ND	0	39.94	142.89
	2/13/2006	129.61	102.60	ND	0	40.29	142.89
	7/31/2006	129.84	101.48	ND	0	41.41	142.89
	11/6/2006	129.73	101.12	ND	0	41.77	142.89
	2/5/2007	129.75	100.66	ND	0	42.23	142.89
	5/7/2007	129.64	100.11	ND	0	42.78	142.89
W-3A*	10/4/2005	104.55	104.55	103.55	1.00	20.25	124.00
	2/13/2006	104.60	102.78	ND	Sheen	21.22	124.00
	7/31/2006	104.88	101.30	ND	0	22.70	124.00
	11/6/2006	106.51	101.16	ND	0	22.84	124.00
	2/5/2007	110.40	100.62	ND	0	23.38	124.00
	5/7/2007	110.43	100.04	ND	Sheen	23.96	124.00
W-4	10/4/2005	129.07	104.36	ND	0	38.02	142.38
	2/13/2006	129.54	103.91	ND	0	38.47	142.38
	7/31/2006	129.60	102.66	ND	0	39.72	142.38
	11/6/2006	129.51	102.21	ND	0	40.17	142.38
	2/5/2007	129.09	101.82	ND	0	40.56	142.38
	5/7/2007	129.62	101.36	ND	0	41.02	142.38
W-7***	10/4/2005	NM	87.97	ND	0	NA	NM
	2/13/2006	NM	85.63	ND	0	NA	NM
	7/31/2006	NM	85.05	ND	0	NA	NM
	11/6/2006	NM	91.19	ND	0	NA	NM
	2/5/2007	NM	82.98	ND	0	NA	NM
	5/7/2007	NM	82.85	ND	0	NA	NM
W-8***	10/4/2005	NM	69.18	ND	0	NA	NM
	2/13/2006	NM	69.11	ND	0	NA	NM
	7/31/2006	NM	67.20	ND	0	NA	NM
	11/6/2006	NM	70.21	ND	0	NA	NM
	2/5/2007	NM	64.04	ND	0	NA	NM
	5/7/2007	NM	62.96	ND	0	NA	NM
W-9	11/6/2006	110.44	84.95	ND	0	NA	NM
	2/5/2007	110.19	84.65	ND	0	54.47	139.12
	5/7/2007	110.07	84.35	ND	0	54.77	139.12
W-10	11/6/2006	110.22	88.35	ND	0	NA	NM
	2/5/2007	110.33	88.16	ND	0	51.83	139.99
	5/7/2007	109.82	87.60	ND	0	52.39	139.99

**TABLE D1-B**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (ARCADIS BBL)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Depth (feet)	Depth to Water (feet)	Depth to Hydrocarbons (feet)	Hydrocarbon Thickness (feet)	Groundwater Elevation (feet-msl)	Top of Casing Elevation (feet-msl)
W-11	11/6/2006	112.83	91.41	ND	0	NA	NM
	2/5/2007	112.85	91.24	ND	0	50.05	141.29
	5/7/2007	112.30	90.60	ND	0	50.69	141.29
W-12	11/6/2006	116.21	94.25	ND	0	NA	NM
	2/5/2007	116.09	93.93	ND	0	50.49	144.42
	5/7/2007	115.90	93.44	ND	0	50.98	144.42

**NOTES:**

Groundwater elevation = (top of casing elevation - depth to water) + (0.8 x hydrocarbon thickness) for Haley & Aldrich, Inc. and BBL, Inc. sampling events  
 Groundwater elevation correction for the presence of free product was performed assuming a specific gravity of 0.8 for the petroleum product

NA - Not applicable

NM - Not measured

ND - Not detected

\* - Sheen developed during sampling of monitoring wells EW-1, MW-504, and W-3A

\*\* - Damage to casing of monitoring well MW-204 was discovered in October 2005; casing above ground was cut in order to collect groundwater sample;  
 top of casing was not resurveyed until February 2007

\*\*\* - Former production wells W-7 and W-8 were never surveyed and are not used in calculating groundwater gradients (screened in a deeper aquifer)

msl - Mean sea level

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPH-g	TPH-d	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl benzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro difluoro methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
<b>Operational Area 1 Bloomfield Property</b>																										
MW-106	12/20/1995	<b>0.79</b>	--	ND<10	--	--	0.012	<b>0.0035</b>	<b>0.01</b>	<b>0.01</b>	--	--	--	--	--	<b>0.033</b>	--	--	--	--	--	--	--	--	--	
	7/31/1996	<b>0.6</b>	--	--	<b>0.0036</b>	--	0.014	<b>0.0022</b>	<b>0.009</b>	ND<0.005	--	--	ND<0.0003	--	<b>0.026</b>	ND<0.0003	--	ND<0.0003	ND<0.0003	<b>0.00054</b>	ND<0.0003	--	ND<0.0003	--		
	12/17/1996	<b>0.36</b>	--	--	ND<0.002	--	<b>0.0031</b>	ND<0.002	ND<0.004	--	--	ND<0.002	ND<0.002	--	<b>0.063</b>	ND<0.002	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	<b>0.0027</b>			
	1/20/1998	<b>0.8</b>	--	--	ND<0.005	--	0.024	ND<0.005	<b>0.0081</b>	ND<0.005	--	--	ND<0.005	ND<0.005	--	<b>0.046</b>	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.0073</b>		
	8/20/1998	<b>1</b>	--	--	ND<0.005	--	<b>0.027</b>	ND<0.005	<b>0.084</b>	ND<0.005	--	--	ND<0.005	ND<0.005	--	<b>0.43</b>	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.0096</b>		
	1/27/1999	<b>1.1</b>	--	--	ND<0.005	--	<b>21</b>	ND<0.005	<b>0.0085</b>	ND<0.005	--	--	ND<0.005	ND<0.005	--	<b>0.047</b>	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.009</b>		
	7/19/1999	<b>0.89</b>	--	--	ND<0.001	--	<b>0.018</b>	ND<0.001	<b>0.0077</b>	ND<0.001	--	--	ND<0.001	ND<0.001	--	<b>0.039</b>	ND<0.001	--	ND<0.001	<b>0.0017</b>	ND<0.005	<b>0.0012</b>	ND<0.001	<b>0.007</b>		
	1/14/2000	<b>1</b>	--	--	ND<0.001	--	<b>0.0041</b>	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	--	<b>0.02</b>	ND<0.001	--	ND<0.001	<b>0.0022</b>	ND<0.005	ND<0.001	ND<0.001	ND<0.001		
	7/31/2000	<b>ND&lt;0.5</b>	--	--	ND<0.001	--	<b>0.0053</b>	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	<b>0.026</b>	ND<0.001	--	ND<0.001	<b>0.0027</b>	ND<0.005	ND<0.001	ND<0.001	<b>0.001</b>		
	2/6/2001	<b>0.53</b>	--	--	ND<0.001	--	<b>0.0023</b>	ND<0.001	<b>0.0013</b>	ND<0.001	--	--	ND<0.001	ND<0.001	--	<b>0.035</b>	ND<0.001	--	ND<0.001	<b>0.002</b>	ND<0.005	<b>0.0012</b>	ND<0.001	ND<0.001		
	7/24/2001	<b>0.47</b>	--	--	ND<0.001	--	<b>0.0017</b>	ND<0.001	ND<0.001	ND<0.001	--	--	<b>0.0014</b>	ND<0.001	ND<0.001	--	<b>0.033</b>	ND<0.001	--	ND<0.001	<b>0.0018</b>	ND<0.005	<b>0.001</b>	ND<0.001	<b>0.018</b>	
	5/7/2002	<b>0.43</b>	--	--	ND<0.001	<b>38</b>	<b>0.0024</b>	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	<b>0.022</b>	ND<0.001	--	ND<0.001	<b>0.0016</b>	ND<0.005	ND<0.001	ND<0.001	ND<0.001		
	9/24/2002	<b>0.12</b>	--	--	ND<0.001	<b>28</b>	<b>0.0035</b>	ND<0.001	ND<0.001	ND<0.002	--	--	ND<0.001	ND<0.001	ND<0.001	<b>0.024</b>	ND<0.001	--	ND<0.001	<b>0.0021</b>	ND<0.005	<b>0.0011</b>	ND<0.001	ND<0.001		
	7/1/2004	<b>0.26</b>	--	--	ND<0.005	ND<0.1	<b>0.0023J</b>	<b>0.00077</b>	<b>0.0011</b>	ND<0.001	--	--	ND<0.005	--	<b>0.015</b>	ND<0.005	--	<b>0.002J</b>	ND<0.005	--	ND<0.005	<b>0.002J</b>	ND<0.005	ND<0.005		
MW-107	12/21/1995	ND<0.5	--	ND<10	--	--	<b>0.016</b>	<b>0.00099</b>	<b>0.00077</b>	<b>0.0029</b>	--	--	--	--	<b>0.028</b>	--	--	--	--	--	--	--	--	--		
	7/31/1996	<b>0.6</b>	--	--	<b>0.11</b>	--	<b>0.031</b>	<b>0.0044</b>	<b>0.0066</b>	ND<0.005	--	--	ND<0.003	--	<b>0.031</b>	ND<0.003	--	ND<0.003	ND<0.003	ND<0.003	<b>0.00045</b>	ND<0.003	--			
	12/17/1996	<b>0.38</b>	--	--	ND<0.002	--	<b>0.022</b>	ND<0.005	ND<0.005	ND<0.01	--	--	ND<0.005	ND<0.005	--	<b>0.08</b>	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005			
	1/20/1998	<b>0.83</b>	--	--	ND<0.005	--	<b>0.042</b>	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	--	<b>0.12</b>	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005			
	8/20/1998	<b>0.83</b>	--	--	ND<0.005	--	<b>0.028</b>	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	--	<b>0.098</b>	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	<b>0.0062</b>			
	1/27/1999	<b>1.1</b>	--	--	ND<0.005	--	<b>0.036</b>	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	--	<b>0.1</b>	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	<b>0.0069</b>			
	7/19/1999	<b>0.82</b>	--	--	ND<0.005	--	<b>0.038</b>	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	--	<b>0.12</b>	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005			
	1/12/2000	<b>1.7</b>	--	--	ND<0.001	--	<b>0.087</b>	ND<0.001	<b>0.0078</b>	ND<0.001	--	--	ND<0.001	ND<0.001	--	<b>0.12</b>	ND<0.001	--	ND<0.001	<b>0.0016</b>	ND<0.005	<b>0.0011</b>	ND<0.001	<b>0.011</b>		
	7/31/2000	<b>1.7</b>	--	--	ND<0.005	--	<b>0.25</b>	ND<0.005	<b>0.02</b>	ND<0.005	--	--	ND<0.005	ND<0.005	--	<b>0.043</b>	ND<0.005	--	ND<0.005	<b>0.0083</b>	ND<0.005	ND<0.005	ND<0.005	<b>0.048</b>		
	2/6/2001	<b>2.1</b>	--	--	ND<0.001	--	<b>0.18</b>	ND<0.001	<b>0.004</b>	ND<0.001	--	--	ND<0.001	ND<0.001	--	<b>0.045</b>	ND<0.001	--	ND<0.001	<b>0.02</b>	ND<0.005	ND<0.001	ND<0.001	<b>0.054</b>		
	7/26/2001	<b>2</b>	--	--	ND<0.002	--	<b>0.22</b>	ND<0.001	<b>0.038</b>	ND<0.001	--	--	ND<0.001	ND<0.001	--	<b>0.033</b>	ND<0.001	--	ND<0.001	<b>0.033</b>	ND<0.005	ND<0.001	ND<0.001	<b>0.051</b>		
	5/9/2002	<b>2.1</b>	--	--	ND<0.002	<b>26</b>	<b>0.31</b>	ND<0.002	<b>0.003</b>	ND<0.002</																

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	TPH-g	TPH-d	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl benzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro difluoro methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
MW-103	3/1/1989	--	--	--	--	--	<b>0.94</b>	ND<0 005	ND<0 005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1989	--	--	--	--	--	<b>0.7</b>	ND<0 005	ND<0 005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1989	--	--	--	--	--	<b>1</b>	<b>0.03</b>	ND<0 005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1992	--	--	--	--	--	<b>0.21</b>	ND<0 005	<b>0.005</b>	<b>0.023</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1992	--	--	--	--	--	<b>0.88</b>	ND<0 005	ND<0 005	<b>0.055</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1992	--	--	--	--	--	<b>0.2</b>	ND<0 005	ND<0 005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1992	--	--	--	--	--	<b>0.35</b>	ND<0 005	ND<0 005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1993	--	--	--	--	--	ND<0.005	<b>0.008</b>	<b>0.019</b>	<b>0.01</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	5/1/1993	--	--	--	--	--	<b>4.8</b>	ND<0.25	ND<0.25	ND<0.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	5/25/1993	--	--	--	--	--	<b>4.8</b>	ND<0.25	ND<0.25	ND<0.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1993	--	--	--	--	--	<b>1.3</b>	<b>0.088</b>	<b>0.062</b>	<b>0.23</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	11/1/1993	--	--	--	--	--	<b>1.4</b>	ND<0.25	ND<0.25	ND<0.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1994	--	--	--	--	--	<b>0.24</b>	ND<0.01	ND<0 01	<b>0.011</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1995	--	--	--	--	--	<b>0.16</b>	ND<0 005	ND<0 005	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1995	--	--	--	--	--	<b>0.9</b>	ND<0.05	ND<0 05	ND<0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/13/1995	<b>4.1</b>	--	ND<0.5	--	--	<b>0.41</b>	<b>0.0041</b>	<b>0.0026</b>	<b>0.077</b>	--	--	--	--	--	ND<0.0005	--	--	--	<b>0.0022</b>	<b>0.0021</b>	ND<0.0005	ND<0.0005	--	--	
	7/31/1996	<b>2.7</b>	--	--	ND<0.01	--	<b>0.34</b>	<b>0.005</b>	ND<0.0005	<b>0.012</b>	--	--	ND<0.0003	--	ND<0.0003	--	<b>0.0007</b>	<b>0.0012</b>	--	<b>0.011</b>	<b>0.017</b>	<b>0.0017</b>	ND<0.0003	ND<0.0003	--	
	12/17/1996	<b>2.4</b>	--	--	ND<0.01	--	<b>0.2</b>	ND<0.005	ND<0.005	ND<0.01	--	--	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	<b>0.027</b>	ND<0.005	ND<0.005	ND<0.005	<b>0.006</b>	--	
	1/21/1998	<b>1.3</b>	--	--	ND<0 005	--	<b>0.23</b>	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	<b>0.011</b>	--		
	8/19/1998	<b>1.6</b>	--	--	ND<0 005	--	<b>0.22</b>	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	<b>0.011</b>	--		
	1/27/1999	<b>1.9</b>	--	--	ND<0 005	--	<b>0.11</b>	ND<0 005	ND<0 005	ND<0.005	--	--	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	<b>0.0071</b>	--		
	7/19/1999	<b>1.8</b>	--	ND<0 001	--	--	<b>0.061</b>	<b>0.0011</b>	ND<0 001	ND<0.001	--	--	ND<0.001	ND<0.001	--	<b>0.0012</b>	ND<0.001	--	ND<0 001	ND<0 001	ND<0.0005	ND<0 001	ND<0 001	<b>0.0088</b>	--	
	1/12/2000	<b>1.5</b>	--	--	<b>0.0012</b>	--	<b>0.081</b>	ND<0 001	ND<0 001	ND<0.001	--	--	ND<0.001	ND<0.001	--	<b>0.003</b>	ND<0 001	--	ND<0 001	ND<0 001	<b>0.004</b>	ND<0 001	ND<0 001	<b>0.0063</b>	--	
	8/4/2000	<b>0.52</b>	--	--	ND<0 001	--	ND<0.0005	ND<0 001	ND<0 001	ND<0.001	--	--	ND<0.001	ND<0.001	--	ND<0 001	ND<0 001	--	ND<0 001	ND<0 001	<b>0.0015</b>	ND<0 001	ND<0 001	<b>0.0035</b>	--	
	2/9/2001	<b>0.65</b>	--	--	ND<0 001	--	<b>0.00087</b>	ND<0 001	ND<0 001	ND<0.001	--	--	ND<0.001	ND<0.001	--	ND<0 001	ND<0 001	--	ND<0 001	ND<0 001	ND<0.0005	ND<0 001	ND<0 001	<b>0.0047</b>	--	
	7/25/2001	<b>1.3</b>	--	--	<b>0.0025</b>	--	<b>0.041</b>	ND<0 001	ND<0 001	<b>0.0027</b>	--	--	ND<0.001	ND<0.001	--	ND<0 0025	ND<0 001	--	ND<0 001	ND<0 001	ND<0.0005	ND<0 001	ND<0 001	<b>0.0041</b>	--	
	5/8/2002	<b>0.2</b>	--	--	ND<0 001	<b>53</b>	ND<0.0005	ND<0 001	ND<0 001	ND<0.001	--	--	ND<0.001	ND<0.001	--	ND<1	ND<0 0013	ND<0 001	--	ND<0 001	ND<0 001	ND<0.0005	ND<0 001	ND<0 001	ND<0.0001	--
	9/25/2002	<b>0.69</b>	--	--	<b>0.0014</b>	<b>40</b>	<b>0.04</b>	ND<0 001	ND<0 001	<b>0.0013</b>	--	--	ND<0.001	ND<0 001	--	ND<1	<b>0.0016</b>	ND<0 001	--	ND<0 001	ND<0 001	ND<0.0005	ND<0 001	ND<0 001	<b>0.0067</b>	--
MW-202	8/1/1985	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	11/1/1993	--	--	--	--	--	<b>7.7</b>	ND<0.5	<b>2.6</b>	<b>6.3</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1995	--	--	--	--	--	<b>0.4</b>	<b>0.007</b>	<b>0.029</b>	<b>0.042</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1995	--	--	--	--	--	<b>0.5</b>	<b>0.01</b>	<b>0.048</b>	<b>0.042</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1995	<b>6.5</b>	--	--	--	--	<b>0.33</b>	<b>0.021</b>	<b>0.051</b>	<b>0.074</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/31/1996	<b>4.8</b>	--	--	<b>0.062</b>	--	<b>0.64</b>	<b>0.015</b>	ND<0.0005	<b>0.032</b>	--	--	ND<0.0003	--	ND<0.0003	--	<b>0.002</b>	ND<0.0003	--	<b>0.0057</b>	<b>0.00054</b>	<b>0.00058</b>	ND<0.0003	<b>0.0004</b>	--	
	12/17/1996	<b>7.4</b>	--	--	ND<0.02	--	<b>0.89</b>	ND<0.5	ND<0.5	ND<0.1	--	--	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	<b>0.055</b>	--		
	1/21/1998	<b>1.6</b>	--	--	ND<0 005	--	<b>0.45</b>	ND<0 005	<b>0.019</b>	<b>0.021</b>	--	--	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	<b>0.057</b>	--		
	8/18/1998	<b>3.1</b>	--	--	ND<0 005	--	<b>0.28</b>	ND<0 005	ND<0 005	ND<0.005	--	--	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	<b>0.049</b>	--		
	1/27/1999	<b>2.3</b>	--	--	ND<0 005	--	<b>0.076</b>	ND<0 005	ND<0 005	ND<0.005	--	--	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	<b>0.067</b>	--		
	7/19/1999	<b>2.3</b>	--	--	ND<0 002	--	<b>0.036</b>	<b>0.0021</b>	<b>0.0037</b>	<b>0.0024</b>	--	--	ND<0.002	ND<0 002	--	ND<0 0033	ND<0 002	--	ND<0 002	ND<0 002	ND<0 002	ND<0 002	<b>0.062</b>	--		
	1/11/2000	<b>2.4</b>	--	--	<b>0.0012</b>	--	<b>0.049</b>	ND<0 001	<b>0.0024</b>	<b>0.0023</b>	--	--	ND<0 001	ND<0 001	--	<b>0.0019</b>	ND<0 001	--	ND<0 001	<b>0.0022</b>	ND<0 0005	ND<0 001	ND<0 001	<b>0.046</b>	--	
	8/2/2000	<b>1.4</b>	--	--	ND<0 001	--	<b>0.041</b>	ND<0 001	<b>0.0018</b>	--	--	--	ND<0 001	ND<0 001	--	<b>0.0046</b>	ND<0 001	--	ND<0 001	<b>0.011</b>	ND<0 0005	ND<0 001	ND<0 001	<b>0.035</b>	--	
	2/7/2000	<b>1.1</b>	--	--	ND<0 001	--	<b>0.025</b>	ND<0 001	ND<0 001	ND<0.001	--	--	ND<0 001	ND<0 001	--	<b>0.0023</b>	ND<0 001	--	ND<0 001	<b>0.0073</b>	ND<0 0005	ND<0 001	ND<0 001	<b>0.0099</b>	--	
	7/24/2001	<b>1.1</b>	--	--	ND<0 001	--	<b>0.038</b>	ND<0 001	<b>0.0018</b>	--																

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	TPH-g	TPH-d	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl benzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro difluoro methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
MW-204	8/21/1998	11	--	--	ND<0.05	--	5.1	0.51	0.52	1.73	--	--	ND<0.05	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	--	ND<0.1	ND<0.05	0.15	ND<0.05	ND<0.05	ND<0.05	
	1/28/1999	10	--	--	ND<0.05	--	3.3	0.11	0.47	1.84	--	--	ND<0.05	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	--	ND<0.1	ND<0.05	ND-0.05	ND-0.05	ND-0.05	ND-0.05	
	1/28/1999DUP	10	--	--	0.0052	--	3.1	0.12	0.53	2.08	--	--	ND<0.05	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	ND-0.05	ND-0.05	ND-0.05	0.018	
	7/19/1999	1.9	--	--	0.027	--	0.56	ND<0.01	0.11	0.23	--	--	ND<0.01	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	
	1/11/2000	2.1	--	--	ND<0.01	--	0.27	ND<0.01	ND<0.01	0.014	--	--	ND<0.01	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	
	8/3/2000	1.3	--	--	ND<0.005	--	0.4	ND<0.005	0.012	0.01	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.025	ND<0.005	ND<0.005	0.0082	
	2/8/2001	1.2	--	--	ND<0.001	--	0.055	0.0014	ND<0.001	0.0015	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	0.0014	
	7/24/2001	1.2	--	--	0.0016	--	0.2	ND<0.001	0.012	0.0048	--	--	ND<0.001	ND<0.001	ND<0.001	--	0.0015	ND<0.001	--	ND<0.001	0.0047	ND<0.005	ND<0.001	ND<0.001	0.0013	
	5/9/2002	1.4	--	--	ND<0.002	170	0.25	0.037	0.12	0.289	--	--	ND<0.002	ND<0.002	ND<0.002	--	ND<2	0.0027	ND<0.002	--	ND<0.002	0.0035	ND<0.001	ND<0.002	ND<0.005	
	9/26/2002	0.56	--	--	ND<0.002	200	0.067	0.0025	0.019	0.0555	--	--	ND<0.002	ND<0.002	ND<0.002	--	ND<2	0.0036	ND<0.002	--	ND<0.002	ND<0.001	ND<0.002	ND<0.001	0.005	
	6/30/2004	0.26	--	--	ND<0.005	0.15	0.03	ND<0.005	0.0076	0.0065	ND<0.0005	0.006	ND<0.005	--	ND<0.005	--	0.004J	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.002J	
W-7	8/4/2000	ND<0.5	--	--	ND<0.001	--	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.0005	ND<0.0001	--	ND<0.0001	0.0012	ND<0.001	ND<0.001	ND<0.001	
	2/8/2001	ND<0.5	--	--	ND<0.001	--	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001		
	7/26/2001	ND<0.1	--	--	ND<0.001	--	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001		
	5/7/2002	ND<0.1	--	--	ND<0.001	ND<10	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<1	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	
	9/24/2002	ND<0.1	--	--	ND<0.001	ND<10	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<1	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	
<b>Operational Area 3 Processing Area</b>																										
MW-104	6/1/1988	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Abandoned	9/1/1988	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1988	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1989	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1989	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1989	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1989	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1990	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1990	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1990	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1990	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1991	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1991	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1991	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1991	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1992	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1992	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1992	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1992	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1993	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	5/1/1993	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	5/25/1993	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1994	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1994	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1995	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1995	--	--	--	--	--	0.003	ND<0.002	ND<0.002	ND<0.002	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<1	0.0043	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	
	12/13/1995	ND<0.5	--	--	--	--	0.003	0.0006	ND<0.005	ND<0.005	--	--	ND<0.005	--	ND<0.005	--	0.0027	--	--	--	--	--	--	--	--	--
	7/31/1996	ND<0.1	--	--	ND<0.01	--	0.0022	0.0018	ND<0.001	0.0027	--	--	ND<0.0003	--	ND<0.0003	--	0.0015	ND<0.0003	--	ND<0.0003	0.00058	0.00051	ND<0.0003	ND<0.0003	--	

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPH-g	TPH-d	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl benzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro difluoro methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
MW-504	2/6/2001	NS	NS	NS	NS	--	NS	NS	NS	NS	--	--	NS	NS	NS	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/24/2001	NS	NS	NS	NS	--	NS	NS	NS	NS	--	--	NS	NS	NS	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	5/6/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	NS	NS	NS	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	9/23/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	NS	NS	NS	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	
<b>Operational Area 4 West Tank Farm Area</b>																										
MW-101	8/1/1985	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1988	--	--	--	--	--	<b>0.62</b>	ND<0.005	ND<0.005	<b>0.1</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1988	--	--	--	--	--	<b>0.31</b>	<b>0.01</b>	<b>0.034</b>	<b>0.013</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1988	--	--	--	--	--	<b>0.49</b>	<b>0.028</b>	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1992	--	--	--	--	--	<b>0.44</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1992	--	--	--	--	--	<b>0.34</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1992	--	--	--	--	--	<b>0.29</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1993	--	--	--	--	--	<b>0.2</b>	ND<0.005	ND<0.005	ND<0.025	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1994	--	--	--	--	--	<b>0.062</b>	ND<0.005	<b>0.005</b>	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1995	--	--	--	--	--	<b>0.11</b>	ND<0.005	<b>0.11</b>	<0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1995	--	--	--	--	--	<b>0.18</b>	ND<0.004	<b>0.18</b>	ND<0.004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/13/1995	<b>2.4</b>	--	ND<5	--	--	<b>0.09</b>	<b>0.0059</b>	<b>0.0064</b>	<b>0.0029</b>	--	--	--	--	--	<b>0.045</b>	--	--	<b>0.0093</b>	<b>0.0018</b>	<b>0.067</b>	ND<0.0005	--	--	--	
	7/31/1996	<b>2.3</b>	--	--	ND<0.01	--	<b>0.13</b>	<b>0.014</b>	<b>0.13</b>	<b>0.014</b>	--	--	ND<0.0003	--	ND<0.0003	--	<b>0.35</b>	ND<0.0003	--	ND<0.0003	<b>0.086</b>	<b>0.0016</b>	<b>0.052</b>	ND<0.0003	--	--
	12/17/1996	<b>0.92</b>	--	--	ND<0.002	--	ND<0.025	ND<0.05	ND<0.025	ND<0.05	--	--	ND<0.025	ND<0.025	ND<0.025	--	<b>0.09</b>	ND<0.025	--	ND<0.025	ND<0.025	<b>0.14</b>	ND<0.025	ND<0.025	--	--
	1/19/1998	<b>1.4</b>	--	--	ND<0.005	--	<b>0.065</b>	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	<b>0.062</b>	ND<0.005	--	ND<0.01	<b>0.017</b>	ND<0.005	ND<0.05	ND<0.005	ND<0.005	--
	8/18/1998	<b>3.2</b>	--	--	--	--	<b>0.14</b>	ND<0.005	<b>0.015</b>	<b>0.0067</b>	--	--	ND<0.005	ND<0.005	ND<0.005	--	<b>0.052</b>	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	<b>0.092</b>	ND<0.005	<b>0.064</b>	--
	1/26/1999	<b>3.2</b>	--	--	ND<0.005	--	<b>0.0684</b>	ND<0.005	<b>0.00708</b>	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	<b>0.0719</b>	ND<0.005	--	ND<0.01	<b>0.0139</b>	ND<0.005	<b>0.0979</b>	ND<0.005	ND<0.005	--
	7/19/1999	<b>1.3</b>	--	--	ND<0.002	--	<b>0.022</b>	ND<0.002	<b>0.0024</b>	ND<0.002	--	--	ND<0.002	ND<0.002	ND<0.002	--	<b>0.057</b>	ND<0.002	--	ND<0.002	<b>0.018</b>	ND<0.001	<b>0.15</b>	ND<0.002	ND<0.002	--
	1/10/2000	<b>0.69</b>	--	--	ND<0.001	--	<b>0.0092</b>	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.025</b>	ND<0.001	--	ND<0.001	<b>0.012</b>	<b>0.0026</b>	<b>0.13</b>	ND<0.001	ND<0.001	--
	8/3/2000	ND<0.5	--	--	ND<0.002	--	<b>0.024</b>	ND<0.002	ND<0.002	ND<0.002	--	--	ND<0.002	ND<0.002	ND<0.002	--	<b>0.033</b>	ND<0.002	--	ND<0.002	<b>0.015</b>	<b>0.0036</b>	<b>0.092</b>	ND<0.002	ND<0.002	--
	2/9/2001	<b>0.6</b>	--	--	ND<0.005	--	<b>0.026</b>	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	<b>0.021</b>	ND<0.005	--	ND<0.005	<b>0.0075</b>	ND<0.0025	<b>0.032</b>	ND<0.005	ND<0.005	--
	7/26/2001	<b>0.69</b>	--	--	ND<0.001	--	<b>0.025</b>	ND<0.001	<b>0.0025</b>	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.028</b>	ND<0.001	--	ND<0.001	<b>0.0082</b>	ND<0.005	<b>0.03</b>	ND<0.001	<b>0.011</b>	--
	5/8/2002	<b>0.58</b>	--	--	ND<0.001	ND<10	<b>0.017</b>	ND<0.001	<b>0.0013</b>	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.016</b>	ND<0.001	--	ND<0.001	<b>0.0029</b>	ND<0.0005	<b>0.016</b>	ND<0.001	ND<0.001	--
	9/25/2002	<b>0.57</b>	--	--	ND<0.001	27	<b>0.031</b>	ND<0.001	<b>0.0012</b>	<b>0.0011</b>	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.014</b>	ND<0.001	--	ND<0.001	<b>0.003</b>	ND<0.0005	<b>0.018</b>	ND<0.001	<b>0.012</b>	--
MW-105	12/21/1995	ND<0.5	--	ND<10	--	--	<b>0.11</b>	<b>0.0017</b>	<b>0.0081</b>	<b>0.0037</b>	--	--	--	--	--	<b>0.0094</b>	--	--	<b>0.0045</b>	<b>0.0033</b>	<b>0.013</b>	--	--	--	--	
	7/31/1996	<b>0.65</b>	--	--	ND<0.01	--	<b>0.091</b>	<b>0.0018</b>	<b>0.002</b>	<b>0.0018</b>	--	--	ND<0.003	--	ND<0.0003	--	<b>0.0084</b>	ND<0.0003	--	ND<0.0003	<b>0.012</b>	<b>0.0014</b>	<b>0.02&lt;/</b>			

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**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

FORMER CENCO REFINERY  
 SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPH-g	TPH-d	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl benzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro difluoro methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
MW-201	8/4/2000	<b>2.9</b>	--	--	ND<0.007	--	<b>0.57</b>	<b>0.015</b>	<b>0.061</b>	<b>0.021</b>	--	--	ND<0.005	ND<0.005	ND<0.005	<b>0.076</b>	ND<0.005	--	ND<0.005	ND<0.005	ND<0.0025	<b>0.019</b>	ND<0.005	<b>0.012</b>		
	2/9/2001	<b>2.2</b>	--	--	ND<0.008	--	<b>0.31</b>	<b>0.012</b>	<b>0.13</b>	<b>0.014</b>	--	--	ND<0.01	ND<0.01	ND<0.01	<b>0.1</b>	ND<0.01	--	ND<0.01	ND<0.01	ND<0.005	<b>0.022</b>	ND<0.01	<b>0.026</b>		
	7/26/2001	<b>3.2</b>	--	--	ND<0.01	--	<b>0.18</b>	<b>0.0096</b>	<b>0.056</b>	<b>0.0247</b>	--	--	ND<0.01	ND<0.01	ND<0.01	--	<b>0.057</b>	ND<0.01	--	ND<0.01	ND<0.01	ND<0.005	<b>0.023</b>	ND<0.01	<b>0.013</b>	
	5/9/2002	<b>1.8</b>	--	--	<b>0.0051</b>	<b>ND&lt;20</b>	<b>0.12</b>	<b>0.0066</b>	<b>0.045</b>	<b>0.02</b>	--	--	ND<0.002	ND<0.002	ND<0.002	<b>0.033</b>	ND<0.002	--	ND<0.002	ND<0.002	ND<0.001	<b>0.0064</b>	ND<0.002	<b>0.0088</b>		
	9/26/2002	<b>0.89</b>	--	--	ND<0.001	ND<10	<b>0.011</b>	<b>0.011</b>	<b>0.068</b>	<b>0.0343</b>	--	--	ND<0.001	ND<0.001	ND<0.001	<b>0.027</b>	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	<b>0.0072</b>	ND<0.001	<b>0.01</b>		
	6/30/2004	<b>1.7</b>	--	--	ND<0.005	ND<0.1	<b>0.12</b>	<b>0.012</b>	<b>0.21E</b>	<b>0.071</b>	<b>0.013</b>	<b>0.058</b>	ND<0.005	--	ND<0.005	ND<0.005	<b>0.021</b>	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.027</b>
MW-205	6/1/1988	--	--	--	--	--	<b>0.013</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1988	--	--	--	--	--	<b>0.027</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1988	--	--	--	--	--	<b>0.12</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1989	--	--	--	--	--	<b>0.04</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1989	--	--	--	--	--	<b>0.12</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1989	--	--	--	--	--	<b>0.081</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1989	--	--	--	--	--	<b>0.17</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1990	--	--	--	--	--	<b>0.14</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1990	--	--	--	--	--	<b>0.056</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1990	--	--	--	--	--	<b>0.045</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1990	--	--	--	--	--	<b>0.047</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1991	--	--	--	--	--	<b>0.04</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1991	--	--	--	--	--	<b>0.056</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1991	--	--	--	--	--	<b>0.043</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1991	--	--	--	--	--	<b>0.085</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1992	--	--	--	--	--	<b>0.035</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1992	--	--	--	--	--	<b>0.006</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1992	--	--	--	--	--	<b>0.005</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1992	--	--	--	--	--	<b>0.01</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1993	--	--	--	--	--	<b>0.022</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	5/1/1993	--	--	--	--	--	<b>0.022</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	5/25/1993	--	--	--	--	--	<b>0.022</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	11/1/1993	--	--	--	--	--	<b>0.032</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1994	--	--	--	--	--	<b>ND&lt;0.005</b>	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1995	--	--	--	--	--	<b>ND&lt;0.005</b>	ND<0.005	ND<0.005	ND<0.015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1995	--	--	--	--	--	<b>0.0053</b>	ND<0.002	ND<0.002	ND<0.002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/13/1995	<b>2.1</b>	--	ND<5	--	--	<b>0.11</b>	<b>0.0013</b>	<b>0.018</b>	<b>0.037</b>	--	--	--	--	--	<b>0.051</b>	--	--	<b>0.0073</b>	<b>0.002</b>	<b>0.022</b>	--	--	--	--	
	7/31/1996	ND<0.1	--	--	ND<0.01	--	<b>0.0051</b>	ND<0.002	ND<0.002	ND<0.002	--	--	ND<0.0003	--	<b>0.03</b>	ND<0.0003	--	ND<0.0003	<b>0.028</b>	ND<0.0003	<b>0.014</b>	ND<0.0003	--	--	--	--
	12/16/1996	<b>0.27</b>	--	--	<b>0.002</b>	--	ND<0.002	ND<0.002	ND<0.004	--	--	ND<0.002	ND<0.002	--	<b>0.035</b>	ND<0.002										

TABLE D2-A  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS  
SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPH-g	TPH-d	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl benzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro difluoro methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB
MW-206	9/1/1995	--	--	--	--	--	6.2	0.8	1.6	3.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Abandoned	12/13/1995	<b>12</b>	--	ND<5	--	--	0.11	0.016	0.032	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/31/1996	<b>33</b>	--	--	<b>0.51</b>	--	<b>0.57</b>	0.11	0.42	0.49	--	--	ND<0.0003	--	ND<0.0003	--	<b>0.02</b>	ND<0.0003	--	ND<0.0003	<b>0.0088</b>	<b>0.0058</b>	<b>0.022</b>	ND<0.0003	--
	12/18/1996	<b>8.2</b>	--	--	ND<0.02	--	<b>2.2</b>	ND<0.1	<b>1.2</b>	<b>0.34</b>	--	--	ND<0.1	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
	1/21/1998	<b>13</b>	--	--	ND<0.005	--	1.5	0.29	1.6	0.78	--	--	ND<0.005	ND<0.005	ND<0.005	--	<b>0.13</b>	ND<0.005	--	ND<0.01	ND<0.005	<b>0.082</b>	ND<0.005	<b>0.085</b>	
	8/20/1998	NS	NS	NS	NS	--	NS	NS	NS	NS	--	--	NS	NS	NS	--	NS	NS	--	NS	NS	NS	NS	NS	NS
MW-501	3/1/1995	--	--	--	--	--	4.2	0.23	1	2.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Destroyed	9/1/1995	--	--	--	--	--	<b>2.4</b>	<b>0.27</b>	ND<0.2	ND<0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/1995	<b>69</b>	--	<b>19.9</b>	--	--	1.6	0.1	<b>0.88</b>	2.2	--	--	--	--	--	--	<b>0.0085</b>	--	--	--	<b>0.0016</b>	<b>0.0032</b>	<b>0.001</b>	<b>0.0013</b>	--
	7/31/1996	<b>18</b>	--	--	<b>0.18</b>	--	<b>1.7</b>	<b>0.073</b>	<b>0.22</b>	<b>1.1</b>	--	--	ND<0.0003	--	ND<0.0003	--	<b>0.0072</b>	ND<0.0003	--	ND<0.0003	<b>0.00081</b>	<b>0.0013</b>	ND<0.0003	<b>0.001</b>	--
	12/18/1996	<b>6.8</b>	--	--	ND<0.01	--	<b>1.2</b>	ND<0.05	<b>0.51</b>	<b>0.65</b>	--	--	ND<0.05	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	<b>0.092</b>	
	1/21/1998	<b>0.95</b>	--	--	ND<0.005	--	<b>0.26</b>	ND<0.005	<b>0.011</b>	<b>0.023</b>	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	8/20/1998	NS	NS	NS	NS	--	NS	NS	NS	NS	--	--	NS	NS	NS	--	NS	NS	--	NS	NS	NS	NS	NS	
	1/26/1999	NS	NS	NS	NS	--	NS	NS	NS	NS	--	--	NS	NS	NS	--	NS	NS	--	NS	NS	NS	NS	NS	

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	TPH-g	TPH-d	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl benzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro difluoro methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
MW-501A	7/19/1999	7.5	--	--	ND<0.025	--	1.3	ND<0.025	ND<0.025	0.025	--	--	ND<0.025	ND<0.025	ND<0.025	--	ND<0.025	ND<0.025	<0.013	<0.013	<0.013	0.041				
	1/13/2000	9.2	--	--	ND<0.01	--	1.6	0.018	ND<0.01	0.023	--	--	ND<0.01	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	ND<0.005	ND<0.01	ND<0.01	ND<0.01	0.034			
	8/2/2000	7.1	--	--	--	--	0.98	0.011	0.012	0.014	--	--	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.005	ND<0.01	ND<0.01	0.085		
	2/7/2001	6.6	--	--	ND<0.01	--	0.68	ND<0.01	0.01	ND<0.01	--	--	ND<0.01	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	ND<0.01	ND<0.005	ND<0.01	ND<0.01	0.09			
	7/25/2001	5.7	--	--	0.085	--	0.14	ND<0.01	ND<0.01	ND<0.01	--	--	ND<0.01	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	ND<0.01	0.013	ND<0.005	ND<0.01	0.011	0.098		
	5/8/2002	7	--	--	0.13	ND<20	0.69	0.0043	0.0068	0.0059	--	--	ND<0.002	ND<0.002	ND<0.002	--	ND<2	ND<0.002	ND<0.002	--	ND<0.002	0.0042	ND<0.001	ND<0.002	0.007	0.1
	9/26/2002	6.5	--	--	0.57	ND<100	0.52	ND<0.01	ND<0.01	ND<0.02	--	--	ND<0.01	ND<0.01	ND<0.01	--	ND<10	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	ND<0.005	ND<0.01	ND<0.01	0.18
MW-502	6/1/1988	--	--	--	--	--	0.95	0.079	0.062	0.016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1988	--	--	--	--	--	1.3	0.18	2.8	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1988	--	--	--	--	--	6.5	0.86	1.5	5.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1989	--	--	--	--	--	5.3	1.2	1.9	7.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1994	--	--	--	--	--	9.8	0.86	1.9	3.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1994	--	--	--	--	--	8.4	1.6	1.6	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1995	--	--	--	--	--	18	0.48	2.1	7.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1995	--	--	--	--	--	15	0.69	3.3	8.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/13/1995	220	--	41.1	--	--	6.9	0.95	3.3	8.5	--	--	--	--	--	0.0069	--	--	--	0.00089	0.0061	--	--	--	0.0011	
	7/13/1996	110	--	--	1	--	13	0.4	1.8	6.8	--	--	ND<0.0003	--	ND<0.0003	--	0.0068	ND<0.0003	--	ND<0.0003	ND<0.0003	0.012	0.00076	ND<0.0003	--	
	12/18/1996	30	--	--	ND<0.01	--	11	ND<0.5	2.1	0.57	--	--	ND<0.5	ND<0.5	ND<0.5	--	ND<0.5	ND<0.5	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	
	1/2/1998	24	--	--	70	--	7.8	0.13	1.3	0.921	--	--	ND<0.025	ND<0.025	ND<0.025	--	ND<0.025	ND<0.025	--	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025	0.09	
	8/19/1998	86	--	--	290	--	12	0.1	1.4	0.953	--	--	ND<0.005	ND<0.005	ND<0.005	--	0.01	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.067	
	1/26/1999	120	--	--	119	--	8.8	0.0804	1.03	0.554	--	--	ND<0.005	ND<0.005	ND<0.005	--	0.0104	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.0767	
	7/19/1999	48	--	--	92	--	11	ND<5	ND<5	ND<5	--	--	ND<5	ND<5	ND<5	--	ND<5	ND<5	--	ND<5	ND<5	ND<2.5	ND<5	ND<5	ND<5	
	1/13/2000	25	--	--	8.7	--	8.1	ND<1	ND<1	ND<1	--	--	ND<1	ND<1	ND<1	--	ND<1	ND<1	--	ND<1	ND<1	ND<0.5	ND<1	ND<1	ND<1	
	8/2/2000	23	--	--	4.5	--	6.3	0.1	0.25	0.2	--	--	ND<0.1	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	ND<0.05	ND<0.1	ND<0.1	ND<1	
	2/7/2001	18	--	--	6.5	--	5	0.082	0.23	ND<0.05	--	--	ND<0.05	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	0.062	
	7/25/2001	24	--	--	18	--	6.5	0.17	0.4	0.513	--	--	ND<0.05	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	0.062	
	5/9/2002	25	--	--	14	ND<2000	4.3	ND<0.2	0.39	0.23	--	--	ND<0.2	ND<0.2	ND<0.2	--	ND<200	ND<0.2	--	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	
	9/26/2002	11	--	--	9.4	ND<1000	4	ND<0.1	0.54	0.23	--	--	ND<0.1	ND<0.1	ND<0.1	--	ND<100	ND<0.1	--	ND<0.1	ND<0.1	ND<0.05	ND<0.1	ND<0.1	ND<0.1	
MW-503	6/1/1988	--	--	--	--	--	0.6	0.14	0.34	0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Abandoned	9/1/1988	--	--	--	--	--	0.8	0.28	0.3	0.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	12/1/1988	--	--	--	--	--	1.5	0.57	0.38	0.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	3/1/1989	--	--	--	--	--	0.4	0.19	0.36	0.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	6/1/1989	--	--	--	--	--	0.6	0.34	0.63	1.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	9/1/1989	--	--	--	--	--	0.99	0.55	0.2	0.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	12/1/1989	--	--	--	--	--	0.27	0.18	0.18	0.56	--	--	--													

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPH-g	TPH-d	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl benzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro difluoro methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB
W-3A	2/8/2001	<b>2.7</b>	--	--	<b>0.012</b>	--	<b>0.034</b>	ND<0.001	<b>0.0029</b>	<b>0.0031</b>	--	--	ND<0.001	ND<0.001	ND<0.001	<b>0.0024</b>	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	<b>0.011</b>
	7/26/2001	<b>3.4</b>	--	--	<b>0.0062</b>	--	<b>0.042</b>	ND<0.001	<b>0.0017</b>	ND<0.01	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	<b>0.021</b>
	5/6/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	NS	NS	NS	NS	NS	NS	--	NS	NS	NS	NS	NS	NS
	9/25/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	--	--	NS	NS	NS	NS	NS	NS	--	NS	NS	NS	NS	NS	NS

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	TPH-g	TPH-d	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl benzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro difluoro methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
<b>Off-Site Wells Walker Property</b>																										
W-1	11/1/1989	--	ND<1	3.6	--	--	0.39	0.0039	0.0021	0.0064	--	--	ND<0.0005	ND<0.0006	ND<0.0005(A)	--	--	--	--	0.0035(A)	ND<0.0005(A)	<0.0006(A)	ND<0.0005(A)	--		
	3/1/1990	--	--	--	--	--	0.14	ND<0.005	ND<0.005	ND<0.02	--	--	ND<0.01	ND<0.01	ND<0.005	--	--	ND<0.02	--	ND<0.02	ND<0.005	ND<0.005	ND<0.005	--		
	4/1/1990	--	--	--	--	--	0.2	0.012	0.0027	--	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.025	ND<0.02	--	ND<0.02	0.0016	ND<0.005	ND<0.005	ND<0.005	--	
	12/18/1996	0.8	--	--	ND<0.01	--	0.078	ND<0.005	ND<0.005	ND<0.01	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.027		
	1/14/1998	1.1	--	--	ND<0.005	--	0.062	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	0.019		
	8/20/1998	1.2	--	--	0.014	--	0.079	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	0.0086	ND<0.005	--	ND<0.01	0.0084	ND<0.005	ND<0.005	ND<0.005	0.027	
	1/29/1999	1.4	--	--	ND<0.005	--	0.057	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	0.024		
	7/19/1999	1.5	--	--	ND<0.002	--	0.048	ND<0.002	ND<0.002	ND<0.002	--	--	ND<0.002	ND<0.002	ND<0.002	--	ND<0.002	ND<0.002	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	0.019		
	1/1300	1.7	--	--	0.0027	--	0.046	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	0.0012	ND<0.001	--	ND<0.001	0.0015	ND<0.005	ND<0.001	ND<0.001	0.021	
	8/3/2000	0.88	--	--	0.01	--	0.029	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	0.0016	ND<0.001	--	ND<0.001	0.0016	ND<0.005	ND<0.001	ND<0.001	0.018	
	2/8/2001	ND<0.5	--	--	0.068	--	0.021	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	0.0023	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	0.0056		
	7/26/2001	0.62	--	--	0.062	--	0.018	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	0.0028	ND<0.001	--	ND<0.001	0.0018	ND<0.005	ND<0.001	ND<0.001	0.01	
	5/8/2002	0.28	--	--	0.0059	44	0.0077	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	0.0033		
	9/25/2002	0.21	--	--	0.0019	30	0.012	ND<0.001	ND<0.001	ND<0.002	--	--	ND<0.001	ND<0.001	ND<0.001	--	0.0065	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	0.0051		
	7/1/2004	0.46	--	--	0.003J	ND<0.1	0.014	0.0028	0.0015	ND<0.001	ND<0.0005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	--	0.0093	ND<0.005	ND<0.005	--	0.001J	ND<0.005	ND<0.005	ND<0.005	ND<0.005
	10/6/2005	0.31	--	--	0.025	0.034	0.043	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	0.0012	--	--	--	ND<0.001	ND<0.005	ND<0.001	--	0.0044	
	2/15/2006	0.266	--	--	0.022	0.037	0.032	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.0043J		
	8/3/2006	1.1	--	--	0.077	0.1	0.086	ND<0.002	ND<0.002	ND<0.002	--	--	ND<0.002	ND<0.002	ND<0.002	--	ND<0.002	ND<0.002	--	ND<0.002	ND<0.002	ND<0.005	ND<0.005	0.018		
	W-2	11/1/1989	--	ND<1	--	--	0.078	0.0065	0.005	--	--	--	ND<0.0005	ND<0.0005	ND<0.0005(A)	--	--	--	--	0.0043(A)	ND<0.0005(A)	ND<0.0005(A)	ND<0.0005(A)	--		
Abandoned	3/1/1990	--	--	--	--	--	0.062	ND<0.0005	ND<0.0005	ND<0.002	--	--	ND<0.001	ND<0.001	ND<0.005	--	--	ND<0.002	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005	--			
	4/1/1990	--	--	--	--	--	0.083	0.026	0.004	0.0015	--	--	ND<0.005	ND<0.005	ND<0.025	--	0.013	ND<0.001	--	ND<0.01	0.003	ND<0.025	ND<0.025	ND<0.0025	--	
	12/18/1996	0.56	--	--	ND<0.002	--	0.056	ND<0.002	ND<0.002	ND<0.004	--	--	ND<0.002	ND<0.002	ND<0.002	--	0.013	ND<0.002	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	0.018		
	1/14/1998	0.7	--	--	ND<0.005	--	0.085	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	0.017	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	0.015		
	8/20/1998	NS	NS	NS	NS	--	NS	NS	NS	NS	--	--	NS	NS	NS	--	NS	NS	--	NS	NS	NS	NS	NS		
	W-4	3/1/1990	--	--	--	--	0.12	ND<0.0005	0.019	ND<0.0005	--	--	ND<0.0005	ND<0.0005	ND<0.0005	--	0.0032	ND<0.0005	--	ND<0.0005	0.0083	ND<0.0005	ND<0.0005	ND<0.0005	--	
	4/1/1990	--	--	--	--	--	0.028	0.0014	0.0048	0.0022	--	--	ND<0.001	ND<0.001	ND<0.001	--	0.00081	ND<0.001	--	ND<0.005	0.022	ND<0.001	ND<0.001	ND<0.001	--	
	12/18/1996	0.42	--	--	ND<0.01	--	0.08	ND<0.005	ND<0.005	ND<0.01	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.019		
	1/14/1998	0.92	--	--																						

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	TPH-g	TPH-d	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl benzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro difluoro methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
MW-601	12/19/1996	<b>70</b>	--	--	ND<0.01	--	<b>10</b>	ND<0.5	<b>1.6</b>	<b>4</b>	--	--	ND<0.5	ND<0.5	ND<0.5	--	ND<0.5	ND<0.5	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5		
Abandoned	1/22/1998	NS	NS	NS	NS	--	NS	NS	NS	NS	--	--	NS	NS	--	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	8/20/1998	NS	NS	NS	NS	--	NS	NS	NS	NS	--	--	NS	NS	--	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	1/28/1999	NS	NS	NS	NS	--	NS	NS	NS	NS	--	--	NS	NS	--	NS	NS	NS	NS	NS	NS	NS	NS	NS		
MW-601A	7/19/1999	<b>42</b>	--	--	<b>11</b>	--	<b>18</b>	ND<5	ND<5	ND<5	--	--	ND<5	ND<5	ND<5	--	ND<5	ND<5	--	ND<5	ND<5	ND<2.5	ND<5	ND<5	ND<5	
	1/13/2000	<b>48</b>	--	--	<b>22</b>	--	<b>22</b>	ND<1	ND<1	ND<1	--	--	ND<1	ND<1	ND<1	--	ND<1	ND<1	--	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	
	8/3/2000	<b>34</b>	--	--	<b>5.6</b>	--	<b>21</b>	ND<0.2	ND<0.2	ND<0.2	--	--	ND<0.2	ND<0.2	ND<0.2	--	ND<0.2	ND<0.2	--	ND<0.2	ND<0.2	ND<0.1	ND<0.1	ND<0.2	ND<0.2	
	2/7/2001	<b>35</b>	--	--	<b>1.2</b>	--	<b>16</b>	<b>0.063</b>	<b>0.097</b>	ND<0.05	--	--	ND<0.05	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	ND<0.025	ND<0.05	ND<0.05	<b>0.057</b>	
	7/24/2001	<b>31</b>	--	--	<b>2.8</b>	--	<b>15</b>	ND<0.1	<b>0.11</b>	ND<0.1	--	--	ND<0.1	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	ND<0.05	ND<0.1	ND<0.1	ND<0.1	
	5/9/2002	<b>24</b>	--	--	<b>2.5</b>	ND<1000	<b>11</b>	ND<0.1	ND<0.1	ND<0.1	--	--	ND<0.1	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	ND<0.05	ND<0.1	ND<0.1	ND<0.1	
	9/26/2002	<b>11</b>	--	--	<b>4</b>	ND<1000	<b>8</b>	ND<0.1	ND<0.1	ND<0.2	--	--	ND<0.1	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	ND<0.05	ND<0.1	ND<0.1	ND<0.1	
	5/9/2002DUP	<b>28</b>	--	--	<b>3.5</b>	NS	<b>12</b>	ND<0.1	ND<0.1	ND<0.1	--	--	ND<0.1	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	ND<0.05	ND<0.1	ND<0.1	ND<0.1	
	9/26/2002DUP	<b>10</b>	--	--	<b>10</b>	NS	<b>4.4</b>	ND<0.1	<b>0.59</b>	<b>0.27</b>	--	--	ND<0.1	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	ND<0.05	ND<0.1	ND<0.1	ND<0.1	
MW-603	12/1/1995	ND<0.5	--	ND<10	--	--	<b>0.00098</b>	<b>0.0014</b>	<b>0.00062</b>	<b>0.0033</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/30/1996	ND<0.1	--	--	<b>0.002</b>	--	<b>0.0006</b>	ND<0.0005	<b>0.0014</b>	ND<0.0005	--	--	<b>0.0026</b>	--	ND<0.0003	--	<b>0.0064</b>	ND<0.0003	--	ND<0.0003	<b>0.0039</b>	<b>0.0095</b>	<b>0.03</b>	ND<0.0003	--	
	12/16/1996	ND<0.1	--	--	ND<0.002	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005		
	1/22/1998	ND<0.1	--	--	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	<b>0.009</b>	ND<0.005	--	ND<0.01	<b>0.005</b>	ND<0.005	ND<0.005	ND<0.005		
	8/19/1998	ND<0.1	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	<b>0.029</b>	<b>0.014</b>	ND<0.005	ND<0.005	
	1/27/1999	ND<0.1	--	--	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	<b>0.0053</b>	ND<0.005	--	ND<0.01	ND<0.005	<b>0.039</b>	<b>0.019</b>	ND<0.005	ND<0.005	
	7/19/1999	ND<0.5	--	--	ND<0.001	--	ND<0.005	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.0074</b>	<b>0.0021</b>	--	ND<0.001	<b>0.003</b>	<b>0.04</b>	<b>0.031</b>	ND<0.001	ND<0.001	
	1/11/2000	ND<0.5	--	--	ND<0.001	--	ND<0.005	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	<b>0.036</b>	<b>0.016</b>	<b>0.039</b>	ND<0.001	ND<0.001
	7/31/2000	ND<0.5	--	--	ND<0.001	--	ND<0.005	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	<b>0.0067</b>	<b>0.0072</b>	<b>0.088</b>	ND<0.001	ND<0.001
	2/7/2001	ND<0.5	--	--	ND<0.001	--	ND<0.005	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	<b>0.0085</b>	<b>0.0027</b>	<b>0.12</b>	ND<0.001	ND<0.001
	7/24/2001	<b>0.19</b>	--	--	ND<0.001	--	ND<0.005	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.015</b>	ND<0.001	--	ND<0.001	<b>0.01</b>	<b>0.0029</b>	<b>0.15</b>	ND<0.001	ND<0.001	
	5/7/2002	<b>0.21</b>	--	--	ND<0.002	ND<20	ND<0.001	ND<0.002	ND<0.002	ND<0.004	--	--	ND<0.002	ND<0.002	ND<0.002	--	<b>0.0096</b>	ND<0.002	--	ND<0.002	<b>0.007</b>	ND<0.001	<b>0.12</b>	ND<0.002	ND<0.002	
	9/24/2002	ND<0.1	--	--	ND<0.002	ND<20	ND<0.001	ND<0.002	ND<0.002	ND<0.002	--	--	ND<0.002	ND<0.002	ND<0.002	--	<b>0.014</b>	ND<0.002	--	ND<0.002	<b>0.011</b>	<b>0.0032</b>	<b>0.21</b>	ND<0.002	ND<0.002	
	7/1/2004	ND<0.2	--	--	ND<0.005	ND<0.1	ND<0.005	<b>0.0003J</b>	ND<0.0005	ND<0.0005	--	--	ND<0.005	ND<0.005	ND<0.005	--	<b>0.012</b>	ND<0.005	ND<0.005	--	<b>0.0057</b>	<b>0.003J</b>	<b>0.08</b>	ND<0.005	ND<0.005	
MW-604	12/20/1995	<b>1.9</b>	--	ND<10	--	--	<b>0.16</b>	<b>0.0033</b>	<b>0.0078</b>	<b>0.021</b>	--	--	--	--												

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

FORMER CENCO REFINERY  
 SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPH-g	TPH-d	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl benzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro difluoro methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
MW-607	8/19/1998	<b>0.26</b>	--	--	<b>0.012</b>	--	<b>0.017</b>	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.015</b>	
	1/27/1999	<b>1.76</b>	--	--	<b>0.0062</b>	--	<b>0.22</b>	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.013</b>	
	7/19/1999	<b>1.2</b>	--	--	ND<0.005	--	<b>0.26</b>	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.013</b>	
	1/11/2000	<b>1.2</b>	--	--	<b>0.0045</b>	--	<b>0.17</b>	ND<0.002	ND<0.002	ND<0.002	--	--	ND<0.002	ND<0.002	ND<0.002	--	ND<0.002	ND<0.002	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	<b>0.0086</b>	
	7/31/2000	<b>0.54</b>	--	--	<b>0.0062</b>	--	<b>0.11</b>	ND<0.002	ND<0.002	ND<0.002	--	--	ND<0.002	ND<0.002	ND<0.002	--	ND<0.002	ND<0.002	--	ND<0.002	ND<0.002	ND<0.001	ND<0.002	ND<0.002	<b>0.0073</b>	
	2/7/2001	<b>0.05</b>	--	--	ND<0.001	--	<b>0.012</b>	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.0011</b>	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	<b>0.0035</b>	
	7/24/2001	<b>0.59</b>	--	--	ND<0.001	--	<b>0.013</b>	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.0014</b>	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	<b>0.0053</b>	
	5/7/2002	<b>0.49</b>	--	--	ND<0.001	<b>91</b>	<b>0.004</b>	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.0015</b>	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	<b>0.0036</b>	
	9/24/2002	<b>0.11</b>	--	--	<b>0.0041</b>	<b>76</b>	ND<0.0005	ND<0.001	ND<0.001	ND<0.002	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.002</b>	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	<b>0.0018</b>	
	5/7/2002DUP	<b>0.44</b>	--	--	ND<0.001	NA	<b>0.0054</b>	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.0017</b>	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	<b>0.0036</b>	
	9/24/2002DUP	<b>0.11</b>	--	--	<b>0.0042</b>	NA	ND<0.0005	ND<0.001	ND<0.001	ND<0.002	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.0019</b>	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	<b>0.0018</b>	
	6/30/2004	<b>0.54</b>	--	--	<b>0.004J</b>	<b>0.05J</b>	0.01	ND<0.0005	ND<0.0005	<b>0.0019</b>	ND<0.0005	<b>0.0014</b>	ND<0.005	--	ND<0.005	ND<0.005	<b>ND&lt;0.005</b>	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.019</b>
MW-A	2/20/1991	<b>0.0498</b>	--	--	--	--	<b>17</b>	<b>14</b>	<b>1.8</b>	<b>12.5</b>	--	--	--	--	--	--	--	ND<0.25	--	--	--	--	--	--		
Abandoned	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-B	2/25/1991	ND<1	--	--	--	--	<b>3.5</b>	<b>0.03</b>	<b>0.18</b>	<b>0.467</b>	--	--	--	--	--	--	--	ND<0.0005	--	--	--	--	--	--		
Abandoned	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-I	2/19/1991	<b>11</b>	--	--	--	--	<b>9.2</b>	<b>2.4</b>	<b>1.5</b>	<b>8.7</b>	--	--	--	--	--	--	--	ND<0.05	--	--	--	--	--	--		
Abandoned	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-C	3/31/1995	<b>0.06</b>	--	--	--	--	<b>0.0006</b>	<b>0.014</b>	ND<0.0005	<b>0.0027</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Abandoned	7/11/1995	ND<0.05	--	--	--	--	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	10/5/1995	ND<0.5	--	--	--	--	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/8/1995	ND<0.5	--	--	--	--	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/7/1996	ND<0.5	--	--	--	--	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/17/1996	ND<0.5	--	--	ND<0.02	--	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-D	3/31/1995	ND<0.05	--	--	--	--	ND<0.0005	<b>0.0066</b>	ND<0.0005	<b>0.0016</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Abandoned	7/11/1995	ND<0.05	--	--	--	--	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	10/5/1995	ND<0.5	--	--	--	--	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/8/1995	ND<0.5	--	--	--	--	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/7/1996	ND<0.5	--	--	--	--	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/17/1996	ND<0.5	--	--	ND<0.02	--	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0015	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-E	3/31/1995	<b>0.06</b>	--	--	--	--	<b>0.0091</b>	<b>0.0066</b>	<b>0.0011</b>	<b>0.0023</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Abandoned	7/11/1995	ND<0.05	--	--	--	--	ND<0.0003	ND<0.0003	ND<0.0003	ND&lt																

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4 TMB	1,3,5 TMB	TOX	VC	CB
<b>Operational Area 1 Bloomfield Property</b>																			
MW-106	12/20/1995	--	--	--	--	--	--	--	--	--	--	--	<b>0.015</b>	<b>0.0015</b>	--	--	--	--	--
	7/31/1996	ND<0.0003	--	--	--	--	--	--	--	--	--	ND<0.0003	<b>0.017</b>	<b>0.0025</b>	--	--	--	<b>0.00098</b>	--
	12/17/1996	ND<0.002	ND<0.002	--	ND<0.002	--	--	ND<0.002	ND<0.002	ND<0.002	--	ND<0.002	<b>0.026</b>	ND<0.002	ND<0.002	ND<0.002	--	ND<0.004	--
	1/20/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	<b>0.01</b>	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005
	8/20/1998	ND<0.005	ND<0.005	--	<b>0.0059</b>	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	<b>0.0058</b>	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005
	1/27/1999	ND<0.005	ND<0.005	--	<b>0.0072</b>	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	
	7/19/1999	ND<0.01	ND<0.001	--	<b>0.0052</b>	--	--	ND<0.01	ND<0.001	<b>0.0015</b>	--	ND<0.001	<b>0.0064</b>	<b>0.0026</b>	ND<0.001	ND<0.001	--	ND<0.005	ND<0.001
	1/14/2000	ND<0.01	ND<0.01	--	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	--	ND<0.001	<b>0.0096</b>	ND<0.001	ND<0.001	ND<0.001	--	ND<0.005	ND<0.001
	7/31/2000	ND<0.001	ND<0.01	ND<0.001	ND<0.001	ND<0.01	ND<0.01	ND<0.01	ND<0.001	ND<0.001	ND<0.001	<b>0.021</b>	<b>0.021</b>	<b>0.0021</b>	ND<0.001	ND<0.001	--	<b>0.025</b>	--
	2/6/2001	ND<0.01	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	--	ND<0.001	<b>0.025</b>	<b>0.0028</b>	ND<0.001	ND<0.001	--	<b>0.015</b>	ND<0.001
	7/24/2001	ND<0.01	ND<0.001	--	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	--	ND<0.001	<b>0.023</b>	<b>0.0021</b>	ND<0.001	ND<0.001	--	ND<0.005	ND<0.001
	5/7/2002	ND<0.01	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	--	ND<0.001	<b>0.017</b>	<b>0.0019</b>	ND<0.001	ND<0.001	--	<b>0.015</b>	ND<0.001
	9/24/2002	ND<0.01	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	--	ND<0.001	<b>0.024</b>	<b>0.0016</b>	ND<0.001	ND<0.001	--	<b>0.021</b>	ND<0.001
	7/1/2004	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.005	--	ND<0.005	--	ND<0.005	<b>0.021</b>	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005
MW-107	12/21/1995	--	--	--	--	--	--	--	--	--	--	--	<b>0.0065</b>	--	--	--	--	--	--
	7/31/1996	ND<0.0003	--	--	--	--	--	--	--	--	--	ND<0.0003	<b>0.019</b>	<b>0.00078</b>	--	--	--	<b>0.0011</b>	--
	12/17/1996	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	<b>0.033</b>	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	--
	1/20/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	<b>0.047</b>	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005
	8/20/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	<b>0.025</b>	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005
	1/27/1999	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	<b>0.044</b>	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005
	7/19/1999	ND<0.05	ND<0.005	--	ND<0.005	--	--	ND<0.05	ND<0.005	ND<0.005	--	ND<0.005	<b>0.077</b>	ND<0.005	ND<0.005	ND<0.005	--	ND<0.025	ND<0.005
	1/12/2000	ND<0.01	ND<0.001	--	<b>0.0022</b>	--	--	ND<0.01	ND<0.001	<b>0.003</b>	--	ND<0.001	<b>0.11</b>	<b>0.0034</b>	ND<0.001	ND<0.001	--	ND<0.005	<b>0.0013</b>
	7/31/2000	ND<0.05	ND<0.005	ND<0.005	<b>0.049</b>	<b>0.11</b>	<b>0.14</b>	ND<0.05	ND<0.005	<b>0.0086</b>	ND<0.011	ND<0.005	<b>0.059</b>	ND<0.005	ND<0.005	ND<0.005	--	<b>0.053</b>	ND<0.005
	2/6/2001	ND<0.01	ND<0.001	<b>0.001</b>	<b>0.057</b>	--	--	ND<0.01	ND<0.001	<b>0.0097</b>	--	ND<0.001	<b>0.0045</b>	ND<0.001	ND<0.001	ND<0.001	--	<b>0.021</b>	ND<0.001
	7/26/2001	ND<0.01	ND<0.001	--	<b>0.053</b>	--	--	ND<0.01	ND<0.001	<b>0.0085</b>	--	ND<0.001	<b>0.013</b>	ND<0.001	ND<0.001	ND<0.001	--	ND<0.005	ND<0.001
	5/9/2002	ND<0.02	ND<0.002	ND<2	<b>0.048</b>	--	--	ND<0.02	ND<0.002	<b>0.0084</b>	--	ND<0.002	<b>0.0057</b>	ND<0.002	ND<0.002	ND<0.002	--	<b>0.03</b>	ND<0.002
	9/25/2002	ND<0.02	ND<0.002	ND<2	<b>0.068</b>	--	--	ND<0.02	ND<0.002	<b>0.012</b>	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	--	<b>0.028</b>	ND<0.002
	7/1/2004	ND<0.005	<b>0.002J</b>	<b>0.002J</b>	<b>0.14</b>	--	--	<b>0.002J</b>	--	<b>0.02</b>	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	<b>0.012</b>	ND<0.005
MW-203	6/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	5/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	5/25/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/13/1995	--	--	--	--	--	--	--	--	--	--	--	<b>0.0045</b>	--	--	--	--	<b>0.0014</b>	
	7/31/1996	ND<0.0003	--	--	--	--	--	--	--	--	--	ND<0.0003	<b>0.0017</b>	<b>0.00034</b>	--	--	--	<b>0.002</b>	--
	12/17/1996	ND<0.001	ND<0.001	--	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.002	--
	1/20/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005
	8/20/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005
	1/27/1999	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005
	7/19/1999	ND<0.01	ND<0.001	--	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	--	ND<0.001	<b>0.0019</b>	ND<0.001	ND<0.001	ND<0.001	--	ND<0.005	ND<0.001
	1/12/2000	ND<0.01	ND<0.001	--	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.005	ND<0.001
	7/31/2000	ND<0.01	ND<0.001	ND<0.001	ND<0.001														

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

FORMER CENCO REFINERY  
 SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4 TMB	1,3,5 TMB	TOX	VC	CB
MW-103	3/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/25/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/1/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/1995	ND<0.0005	--	--	--	--	--	--	--	--	--	ND<0.0005	ND<0.0005	ND<0.0005	--	--	--	<b>0.0025</b>	--
	7/31/1996	ND<0.0003	--	--	--	--	--	--	--	--	--	ND<0.0003	ND<0.0003	<b>0.00038</b>	--	--	--	ND<0.0003	--
	12/17/1996	ND<0.005	ND<0.005	--	<b>0.0084</b>	--	--	ND<0.005	ND<0.005	--	<b>0.0089</b>	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	<b>0.054</b>	--	
	1/21/1998	ND<0.005	ND<0.005	--	<b>0.015</b>	--	--	ND<0.01	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	<b>0.028</b>	ND<0.005	
	8/19/1998	ND<0.005	<b>0.0069</b>	--	<b>0.018</b>	--	--	ND<0.01	ND<0.005	<b>0.0054</b>	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	
	1/27/1999	ND<0.005	ND<0.005	--	<b>0.0059</b>	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	
	7/19/1999	ND<0.01	<b>0.0031</b>	--	<b>0.0081</b>	--	--	ND<0.01	ND<0.001	<b>0.0039</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.001	
	1/12/2000	ND<0.01	<b>0.0035</b>	--	<b>0.0067</b>	--	--	ND<0.01	ND<0.001	<b>0.0037</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.001	
	8/4/2000	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.01	ND<0.01	ND<0.001	<b>0.0039</b>	ND<0.01	ND<0.001	ND<0.001	<b>0.0012</b>	ND<0.001	ND<0.001	--	<b>0.00075</b>	ND<0.001
	2/9/2001	ND<0.01	ND<0.001	--	ND<0.001	--	--	ND<0.01	ND<0.001	<b>0.0036</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.001	
	7/25/2001	ND<0.01	<b>0.0029</b>	--	<b>0.0055</b>	--	--	ND<0.01	ND<0.001	<b>0.0032</b>	--	ND<0.001	ND<0.001	<b>0.0058</b>	<b>0.0017</b>	--	ND<0.0005	ND<0.001	
	5/8/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	--	--	ND<0.01	ND<0.001	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.001	
	9/25/2002	ND<0.01	<b>0.0039</b>	ND<1	<b>0.013</b>	--	--	ND<0.01	ND<0.001	<b>0.0043</b>	--	ND<0.001	ND<0.001	<b>0.0014</b>	ND<0.001	--	ND<0.0005	ND<0.001	
MW-202	8/1/1985	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/31/1996	ND<0.0003	--	--	--	--	--	--	--	--	--	ND<0.0003	<b>0.00034</b>	<b>0.00037</b>	--	--	--	ND<0.0003	--
	12/17/1996	ND<0.05	ND<0.05	--	<b>0.1</b>	--	--	ND<0.05	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	ND<0.01	--	
	1/21/1998	ND<0.005	<b>0.011</b>	--	<b>0.1</b>	--	--	ND<0.01	ND<0.005	<b>0.016</b>	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	
	8/18/1998	ND<0.005	<b>0.016</b>	--	<b>0.091</b>	--	--	ND<0.01	ND<0.005	<b>0.026</b>	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	
	1/27/1999	ND<0.005	ND<0.005	--	<b>0.13</b>	--	--	ND<0.01	ND<0.005	<b>0.029</b>	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	
	7/19/1999	ND<0.02	<b>0.019</b>	--	<b>0.13</b>	--	--	ND<0.02	ND<0.002	<b>0.029</b>	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	--	ND<0.001	ND<0.002	
	1/11/2000	ND<0.01	<b>0.0072</b>	--	<b>0.029</b>	--	--	ND<0.01	ND<0.001	<b>0.023</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.001	
	8/2/2000	ND<0.01	<b>0.0019</b>	<b>0.018</b>	<b>0.01</b>	ND<0.01	ND<0.01	ND<0.01	ND<0.001	<b>0.023</b>	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.001	
	2/7/2000	ND<0.01	<b>0.0011</b>	<b>0.018</b>	<b>0.0077</b>	--	--	ND<0.01	ND<0.001	<b>0.01</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	<b>0.0033</b>	ND<0.001	
	7/24/2001	ND<0.01	<b>0.0024</b>	--	<b>0.016</b>	--	--	ND<0.01	ND<0.001	<b>0.004</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.001	
	5/8/2002	ND<0.01	<b>0.0031</b>	<b>1.4</b>	<b>0.032</b>	--	--	ND<0.01	ND<0.001	<b>0.0036</b>	--	ND<0.001	ND<0.001						

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4 TMB	1,3,5 TMB	TOX	VC	CB	
MW-204	8/21/1998	ND<0.05	ND<0.05	--	<b>0.054</b>	--	--	ND<0.1	ND<0.05	--	ND<0.05	ND<0.05	<b>0.2</b>	ND<0.05	--	ND<0.1	ND<0.05			
	1/28/1999	ND<0.05	ND<0.05	--	ND<0.05	--	--	ND<0.1	ND<0.05	ND<0.05	ND<0.05	ND<0.05	<b>0.21</b>	<b>0.052</b>	--	ND<0.1	ND<0.05			
	1/28/1999DUP	ND<0.005	ND<0.005	--	<b>0.048</b>	--	--	<b>0.094</b>	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.25</b>	<b>0.061</b>	--	<b>0.012</b>	ND<0.005			
	7/19/1999	ND<0.1	ND<0.01	--	<b>0.023</b>	--	--	ND<0.1	ND<0.1	--	ND<0.01	ND<0.01	<b>0.047</b>	<b>0.011</b>	--	ND<0.005	ND<0.01			
	1/11/2000	ND<0.1	ND<0.01	--	<b>0.019</b>	--	--	ND<0.1	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.005	ND<0.01			
	8/3/2000	ND<0.05	ND<0.005	ND<0.005	<b>0.021</b>	<b>0.064</b>	<b>0.088</b>	ND<0.01	ND<0.005	ND<0.005	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.0025	ND<0.005	
	2/8/2001	ND<0.01	ND<0.001	ND<0.001	<b>0.0029</b>	--	--	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
	7/24/2001	ND<0.01	ND<0.001	--	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
	5/9/2002	ND<0.02	ND<0.002	ND<2	<b>0.013</b>	--	--	ND<0.02	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	<b>0.026</b>	<b>0.0089</b>	--	<b>0.0035</b>	ND<0.002
	9/26/2002	ND<0.02	ND<0.002	ND<2	<b>0.0095</b>	--	--	ND<0.02	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	<b>0.022</b>	<b>0.0077</b>	--	<b>0.0034</b>	ND<0.002	
	6/30/2004	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	<b>0.004J</b>	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.068</b>	<b>0.002J</b>	--	ND<0.005	ND<0.005	
W-7	8/4/2000	ND<0.01	ND<0.01	ND<0.01	ND<0.01	--	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
	2/8/2001	ND<0.01	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
	7/26/2001	ND<0.01	ND<0.001	--	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
	5/7/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
	9/24/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
<b>Operational Area 3 Processing Area</b>																				
MW-104	6/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Abandoned	9/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	5/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	5/25/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	11/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/13/1995	--	--	--	--	--</td														

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

FORMER CENCO REFINERY  
 SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4 TMB	1,3,5 TMB	TOX	VC	CB
MW-504	2/6/2001	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/24/2001	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/6/2002	NS	NS	NS	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/23/2002	NS	NS	NS	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
<b>Operational Area 4 West Tank Farm Ar</b>																			
MW-101	8/1/1985	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<b>0.18</b>	--	--
	6/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/1/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/1995	<b>0.0013</b>	--	--	--	--	--	--	--	--	<b>0.036</b>	<b>0.00097</b>	<b>0.1</b>	--	--	--	ND<0.0005	--	--
	7/31/1996	ND<0.0003	--	--	--	--	--	--	--	--	<b>24</b>	ND<0.0003	<b>0.041</b>	--	--	--	ND<0.0003	--	--
	12/17/1996	ND<0.025	ND<0.025	--	ND<0.025	--	--	ND<0.025	ND<0.025	--	<b>0.057</b>	ND<0.025	<b>0.24</b>	ND<0.025	ND<0.025	--	ND<0.05	--	--
	1/19/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	<b>0.18</b>	ND<0.005	<b>0.32</b>	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	--
	8/18/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	<b>0.034</b>	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	--
	1/26/1999	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	<b>0.0193</b>	ND<0.005	<b>0.16</b>	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	--
	7/19/1999	ND<0.02	ND<0.002	--	ND<0.002	--	--	ND<0.02	ND<0.002	--	<b>0.078</b>	<b>0.0085</b>	<b>0.27</b>	ND<0.002	ND<0.002	--	ND<0.001	ND<0.002	--
	1/10/2000	ND<0.01	ND<0.001	--	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	--	<b>0.21</b>	<b>0.0035</b>	<b>0.26</b>	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.001
	8/3/2000	ND<0.02	ND<0.002	ND<0.002	ND<0.002	ND<0.01	ND<0.01	ND<0.02	ND<0.002	ND<0.01	<b>0.037</b>	<b>0.019</b>	<b>0.27</b>	ND<0.002	ND<0.002	--	<b>0.005</b>	ND<0.002	--
	2/9/2001	ND<0.05	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.05	ND<0.005	ND<0.005	<b>0.0099</b>	<b>0.011</b>	<b>0.1</b>	ND<0.005	ND<0.005	--	<b>0.0032</b>	ND<0.005	--
	7/26/2001	ND<0.01	ND<0.001	--	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	<b>0.0081</b>	<b>0.015</b>	<b>0.1</b>	ND<0.001	ND<0.001	--	<b>0.0043</b>	ND<0.001	--
	5/8/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	<b>0.0062</b>	<b>0.0056</b>	<b>0.078</b>	ND<0.001	ND<0.001	--	<b>0.0019</b>	ND<0.001	--
	9/25/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	<b>0.0045</b>	<b>0.0045</b>	<b>0.079</b>	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.001	--
MW-105	12/21/1995	--	--	--	--	--	--	--	--	--	<b>0.016</b>	--	<b>0.046</b>	--	--	--	--	--	--
	7/31/1996	ND<0.0003	--	--	--	--	--	--	--	--	<b>0.024</b>	ND<0.0003	<b>0.033</b>	--	--	--	ND<0.0003	--	--
	12/16/1996	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	<b>0.08</b>	ND<0.005	<b>0.11</b>	ND<0.005	ND<0.005	--	ND<0.01	--	--
	1/20/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	<b>0.15</b>	ND<0.005	<b>0.21</b>	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	--
	8/18/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	<b>0.0967</b>	ND<0.005	<b>0.162</b>	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	--
	1/25/1999	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	<b>0.125</b>	ND<0.005	<b>0.187</b>	ND<0.005	ND<0.005	--	<b>0.00643</b>	ND<0.005	--
	7/19/1999	ND<0.01	ND<0.001	--	ND<0.001	ND<0.0095	ND<0.0095	ND<0.01	ND<0.001	ND<0.001	<b>0.078</b>	<b>0.015</b>	<b>0.28</b>	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.001	--
	1/10/2000	ND<0.05	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.05	ND<0.005	ND<0.005	<b>0.062</b>	<b>0.062</b>	<b>0.13</b>	ND<0.005	ND<0.005	--	ND<0.025	ND<0.005	--
	7/31/2000	ND<0.05	ND<0.005	ND<0.005	ND<0.005	--	--	ND<0.0095	ND<0.0095	ND<0.0095	<b>0.059</b>	<b>0.16</b>	ND<0.005	ND<0.005	--	<b>0.01</b>	ND<0.005	--	
	2/6/2001	ND<0.05	ND<0.005	--	ND<0.005	--	--	ND<0.05	ND<0.005	ND<0.005	<b>0.021</b>	<b>0.047</b>	ND<0.005	ND<0.005	--	<b>0.0079</b>	ND<0.005	--	
	7/24/2001	ND<0.001	ND<0.001	--	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	<b>0.011</b>	<b>0.036</b>	ND<0.001	--	--	ND<0.005	ND<0.001	--	
	5/7/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	<b>0.0068</b>	<b>0.038</b>	ND<0.001	ND<0.001					

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

FORMER CENCO REFINERY  
 SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4 TMB	1,3,5 TMB	TOX	VC	CB
MW-201	8/4/2000	ND<0.05	ND<0.005	ND<0.005	<b>0.012</b>	ND<0.01	ND<0.01	ND<0.01	ND<0.005	ND<0.01	ND<0.005	ND<0.005	<b>0.032</b>	<b>0.033</b>	ND<0.005	--	ND<0.0025	ND<0.005	
	2/9/2001	ND<0.1	ND<0.01	ND<0.01	<b>0.032</b>	--	--	ND<0.1	ND<0.01	ND<0.01	--	ND<0.01	<b>0.013</b>	<b>0.024</b>	ND<0.01	--	ND<0.005	ND<0.01	
	7/26/2001	ND<0.1	<b>0.031</b>	--	<b>0.016</b>	--	--	ND<0.1	<b>0.0036</b>	<b>0.033</b>	--	ND<0.01	<b>0.0068</b>	<b>0.008</b>	<b>0.017</b>	<b>0.0025</b>	--	ND<0.01	ND<0.02
	5/9/2002	ND<0.02	ND<0.002	ND<2	<b>0.0086</b>	--	--	ND<0.02	<b>0.0024</b>	<b>0.0021</b>	--	ND<0.002	<b>0.0042</b>	<b>0.014</b>	<b>0.0056</b>	<b>0.0038</b>	--	<b>0.0011</b>	ND<0.002
	9/26/2002	ND<0.01	<b>0.0024</b>	ND<1	<b>0.012</b>	--	--	ND<0.001	<b>0.0026</b>	<b>0.0022</b>	--	ND<0.001	<b>0.0033</b>	<b>0.029</b>	<b>0.012</b>	<b>0.014</b>	--	<b>0.0014</b>	ND<0.001
	6/30/2004	ND<0.005	ND<0.005	ND<0.005	<b>0.024</b>	--	--	<b>0.016</b>	--	<b>0.005J</b>	--	ND<0.005	ND<0.005	<b>0.0054</b>	<b>0.012</b>	--	<b>0.002J</b>	ND<0.005	
MW-205	6/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/25/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/1/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/1995	<b>0.0058</b>	--	--	--	--	--	--	--	--	<b>0.0028</b>	<b>0.0053</b>	<b>0.08</b>	--	--	--	--	--	--
	7/31/1996	ND<0.003	--	--	--	--	--	--	--	--	<b>0.0035</b>	ND<0.003	<b>0.084</b>	--	--	--	ND<0.003	--	--
	12/16/1996	ND<0.002	ND<0.002	--	ND<0.002	--	--	ND<0.002	ND<0.002	--	ND<0.002	ND<0.002	<b>0.045</b>	ND<0.002	ND<0.002	--	ND<0.004	--	--
	1/20/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.048</b>	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	--
	8/21/1998	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.062</b>	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	--
	1/26/1999	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.0251</b>	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	--
	7/19/1999	ND<0.01	ND<0.001	--	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	<b>0.018</b>	<b>0.012</b>	ND<0.001	ND<0.001	--	ND<0.005	ND<0.001
	1/11/2000	ND<0.01	ND<0.001	<b>0.011</b>	--	ND<0.01	--	ND<0.01	ND<0.001	--	<b>0.013</b>	ND<0.001							
	8/2/2000	ND<0.01	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.01	ND<0.001	--	ND<0.005	ND<0.001							
	2/7/2001	ND<0.01	ND<0.001	--	<b>0.0015</b>	--	--	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	<b>0.011</b>	<b>0.0017</b>	<b>0.0085</b>	--	<b>0.00096</b>	ND<0.001	--
	7/26/2001	ND<0.01	ND<0.001	--	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	<b>0.011</b>	ND<0.001	ND<0.001	--	ND<0.005	ND<0.001	--
	5/8/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	<b>0.011</b>	ND<0.001	ND<0.001	--	<b>0.00065</b>	ND<0.001	--
	9/25/2002	ND<0.01	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.01	ND<0.001	--	<b>0.0047</b>	ND<0.001	--						
	6/30/2004	ND<0.005	ND<0.005	--															

TABLE D2-A  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS  
SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4 TMB	1,3,5 TMB	TOX	VC	CB
MW-206	9/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Abandoned	12/3/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/31/1996	ND<0.0003	--	--	--	--	--	--	--	--	ND<0.0003	ND<0.0003	<b>0.0014</b>	--	--	--	ND<0.0003	--	
	12/18/1996	ND<0.1	ND<0.1	--	<b>0.12</b>	--	--	<b>0.13</b>	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	<b>0.19</b>	<b>0.14</b>	--	ND<0.2	--	
	1/21/1998	ND<0.005	<b>0.017</b>	--	<b>0.22</b>	--	--	<b>0.059</b>	<b>0.005</b>	<b>0.011</b>	--	ND<0.005	ND<0.005	<b>0.035</b>	<b>0.012</b>	--	ND<0.01	<b>0.05</b>	
	8/20/1998	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-501	3/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Destroyed	9/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/13/1995	<b>0.001</b>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/31/1996	ND<0.0003	--	--	--	--	--	--	--	ND<0.0003	ND<0.0003	<b>0.00039</b>	--	--	--	--	ND<0.0003	--	
	12/18/1996	ND<0.05	ND<0.05	--	<b>0.2</b>	--	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	<b>0.31</b>	<b>0.13</b>	--	ND<0.1	--		
	1/21/1998	ND<0.005	ND<0.005	--	<b>0.0061</b>	--	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.0093</b>	ND<0.005	--	ND<0.01	ND<0.005		
	8/20/1998	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1/26/1999	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

FORMER CENCO REFINERY  
 SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4 TMB	1,3,5 TMB	TOX	VC	CB
MW-501A	7/19/1999	ND<0.25	ND<0.025	--	<b>0.052</b>	--	--	ND<0.25	ND<0.025	--	ND<0.025	ND<0.025	ND<0.025	ND<0.025	--	<0.013	ND<0.025		
	1/13/2000	ND<0.1	ND<0.01	--	<b>0.042</b>	--	--	ND<0.1	ND<0.01	--	ND<0.01	ND<0.01	ND<0.01	ND<0.01	--	ND<0.005	ND<0.01		
	8/2/2000	ND<0.1	ND<0.01	ND<0.01	<b>0.15</b>	<b>0.094</b>	<b>0.14</b>	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	--	ND<0.006	ND<0.01		
	2/7/2001	ND<0.1	ND<0.01	ND<0.01	<b>0.18</b>	--	--	ND<0.1	ND<0.01	--	ND<0.01	ND<0.01	ND<0.01	ND<0.01	--	<b>0.0065</b>	ND<0.01		
	7/25/2001	ND<0.1	ND<0.01	--	<b>0.21</b>	--	--	ND<0.1	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	--	ND<0.005	ND<0.01		
	5/8/2002	ND<0.02	<b>0.011</b>	ND<2	<b>0.19</b>	--	--	ND<0.02	ND<0.002	<b>0.0093</b>	--	ND<0.002	ND<0.002	ND<0.002	--	<b>0.0024</b>	ND<0.002		
	9/26/2002	ND<0.1	<b>0.038</b>	ND<10	<b>0.38</b>	--	--	ND<0.1	ND<0.01	<b>0.024</b>	--	ND<0.01	ND<0.01	ND<0.01	--	<b>0.0055</b>	ND<0.01		
MW-502	6/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	9/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	12/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	3/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	9/1/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	12/1/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	3/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	9/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	12/13/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	7/13/1996	ND<0.0003	--	--	--	--	--	--	--	--	ND<0.0003	ND<0.0003	<b>0.00052</b>	--	--	--	ND<0.0003	--	
	12/18/1996	ND<0.5	ND<0.5	--	ND<0.5	--	--	ND<0.5	ND<0.5	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	ND<1	--		
	1/22/1998	ND<0.025	ND<0.025	--	<b>0.18</b>	--	<b>0.32</b>	ND<0.025	ND<0.025	--	ND<0.025	ND<0.025	<b>0.3</b>	<b>0.07</b>	--	ND<0.05	ND<0.025		
	8/19/1998	ND<0.005	<b>0.016</b>	--	<b>0.14</b>	--	<b>0.28</b>	ND<0.005	<b>0.01</b>	--	ND<0.005	ND<0.005	<b>0.34</b>	<b>0.06</b>	--	ND<0.01	ND<0.005		
	1/26/1999	ND<0.005	ND<0.005	--	<b>0.135</b>	--	<b>0.255</b>	ND<0.005	<b>0.0151</b>	--	ND<0.005	ND<0.005	<b>0.179</b>	<b>0.0471</b>	--	ND<0.01	ND<0.005		
	7/19/1999	ND<50	ND<5	--	ND<5	--	ND<50	ND<5	ND<5	--	ND<5	ND<5	ND<5	ND<5	--	ND<2.5	ND<5		
	1/13/2000	ND<10	ND<1	--	ND<1	--	ND<10	ND<10	--	ND<1	ND<1	ND<1	ND<1	--	ND<0.5	ND<1			
	8/2/2000	ND<0.1	ND<0.1	ND<0.1	<b>0.11</b>	<b>0.03</b>	<b>0.045</b>	<b>0.16</b>	ND<0.1	<b>0.08</b>	ND<0.1	ND<0.1	ND<0.1	ND<0.1	--	ND<0.05	ND<0.1		
	2/7/2001	ND<0.5	ND<0.05	ND<0.05	<b>0.092</b>	--	--	ND<0.5	ND<0.05	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	ND<0.25	ND<0.05		
	7/25/2001	ND<0.5	ND<0.05	--	<b>0.11</b>	--	--	ND<0.5	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	<b>0.089</b>	ND<0.05	--	ND<0.25	ND<0.05	
	5/9/2002	ND<2	ND<0.2	ND<200	ND<0.2	--	--	ND<2	ND<0.2	--	ND<0.2	ND<0.2	ND<0.2	ND<0.2	--	ND<0.1	ND<0.2		
	9/26/2002	ND<1	ND<0.1	ND<100	<b>0.1</b>	--	--	ND<1	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	<b>0.1</b>	ND<0.1	--	ND<0.05	ND<0.1	
MW-503	6/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Abandoned	9/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	12/1/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	3/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	6/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	9/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	12/1/1989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	3/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	6/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	9/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	12/1/1990	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	3/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	6/1/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	12/1/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	3/1/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	12/1/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	3/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	9/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
	12/13/1995	<b>0.001</b>	--	--	--	--	--	--	--	--	<b>0.0012</b>	<b>0.085</b>	--	--	--	<b>0.0014</b>	--		
	7/31/1996	ND<0.0003	--	--	--	--	--	--	--	--	<b>0.09</b>	ND<0.0003	<b>0.13</b>	--	--	ND<0.0003	--		
	12/18/1996	ND<0.01	ND<0.01	--	<b>0.048</b>	--	<b>0.028</b>	ND<0.01	<b>0.012</b>	--	<b>0.014</b>	ND<0.01	<b>0.27</b>	<b>0.063</b>	<b>0.023</b>	--	ND<0.02	--	
	1/21/1998	ND<0.005	<b>0.006</b>	ND<2	<b>0.068</b>	--	<b>0.017</b>	ND<0.005	<b>0.012</b>	--	ND<0.005	<b>0.027</b>	<b>0.46</b>	<b>0.0058</b>	<b>0.014</b>	--	ND<0.01	ND<0.005	
	8/19/1998	ND<0.005	ND<0.005	1.8	<b>0.014</b>	--	<b>0.0053</b>												

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4 TMB	1,3,5 TMB	TOX	VC	CB
W-3A	2/8/2001	ND<0.01	<b>0.0039</b>	ND<0.001	<b>0.012</b>	--	--	<b>0.063</b>	ND<0.001	<b>0.0036</b>	--	ND<0.001	ND<0.001	<b>0.013</b>	<b>0.0044</b>	--	<b>0.0017</b>	ND<0.001	
	7/26/2001	ND<0.01	<b>0.0087</b>	--	<b>0.024</b>	--	--	<b>0.011</b>	ND<0.001	<b>0.0075</b>	--	ND<0.001	ND<0.001	<b>0.015</b>	ND<0.001	--	<b>0.027</b>	ND<0.001	
	5/6/2002	NS	NS	NS	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	9/25/2002	NS	NS	NS	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4 TMB	1,3,5 TMB	TOX	VC	CB
<b>Off-Site Wells Walker Property</b>																			
W-1	11/1/1989	ND<0.0005(A)	--	--	--	--	--	--	--	--	--	ND<0.0005(A)	ND<0.0005(A)	ND<0.0005(A)	--	--	--	<b>0.021</b>	ND<0.0005
	3/1/1990	ND<0.02	--	--	--	--	--	--	--	--	--	ND<0.005	ND<0.01	ND<0.005	--	--	--	ND<0.02	ND<0.01
	4/1/1990	ND<0.005	--	--	--	--	--	--	--	--	--	ND<0.005	ND<0.005	ND<0.005	--	--	--	ND<0.005	ND<0.005
	12/18/1996	ND<0.005	ND<0.005	--	<b>0.031</b>	--	--	<b>0.01</b>	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	--
	1/14/1998	ND<0.005	ND<0.005	--	<b>0.02</b>	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	<b>0.016</b>	ND<0.005
	8/20/1998	ND<0.005	ND<0.005	--	<b>0.03</b>	--	--	ND<0.01	ND<0.005	<b>0.005</b>	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	<b>0.026</b>	ND<0.005
	1/29/1999	ND<0.005	ND<0.005	--	<b>0.028</b>	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	<b>0.018</b>	ND<0.005
	7/19/1999	ND<0.02	<b>0.0027</b>	--	<b>0.023</b>	--	--	ND<0.02	ND<0.002	<b>0.0044</b>	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	--	ND<0.001	ND<0.002
	1/13/00	ND<0.01	<b>0.0027</b>	--	<b>0.024</b>	--	--	ND<0.01	ND<0.001	<b>0.0039</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	<b>0.013</b>	ND<0.001
	8/3/2000	ND<0.01	<b>0.002</b>	ND<0.001	<b>0.018</b>	<b>0.041</b>	<b>0.041</b>	ND<0.01	ND<0.001	<b>0.0032</b>	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	<b>0.0073</b>	ND<0.001
	2/8/2001	ND<0.01	ND<0.001	--	<b>0.0059</b>	--	--	ND<0.01	ND<0.001	<b>0.0018</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	<b>0.0063</b>	ND<0.001
	7/26/2001	ND<0.01	ND<0.001	--	<b>0.0077</b>	--	--	ND<0.01	ND<0.001	<b>0.0022</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	<b>0.0068</b>	ND<0.001
	5/8/2002	ND<0.01	ND<0.001	ND<1	<b>0.0024</b>	--	--	ND<0.01	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	<b>0.0064</b>	ND<0.001
	9/25/2002	ND<0.01	ND<0.001	ND<1	<b>0.0027</b>	--	--	ND<0.01	ND<0.001	<b>0.001</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	<b>0.014</b>	ND<0.001
	7/1/2004	ND<0.005	ND<0.005	ND<0.005	--	--	--	ND<0.005	--	<b>0.001J</b>	--	ND<0.005	<b>0.004J</b>	ND<0.005	ND<0.005	ND<0.005	--	<b>0.002</b>	ND<0.005
	10/6/2005	--	--	--	ND<0.01	--	--	ND<0.01	ND<0.001	ND<0.001	--	ND<0.001	<b>0.0016</b>	ND<0.001	ND<0.001	ND<0.01	--	<b>0.0071</b>	--
	2/15/2006	--	ND<0.005	--	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	<b>0.013J</b>	ND<0.005	ND<0.005	ND<0.005	--	<b>0.0033J</b>	--
	8/3/2006	--	ND<0.005	--	<b>0.0087</b>	--	--	ND<0.005	ND<0.005	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	--	ND<0.005	--	
W-2	11/1/1989	ND<0.0005(A)	--	--	--	--	--	--	--	--	ND<0.0005(A)	ND<0.0005(A)	ND<0.0005(A)	--	--	--	<b>0.075(A)</b>	ND<0.0005	
Abandoned	3/1/1990	ND<0.002	--	--	--	--	--	--	--	--	ND<0.005	ND<0.001	ND<0.005	--	--	--	ND<0.002	ND<0.001	
	4/1/1990	ND<0.005	--	--	--	--	--	--	--	--	ND<0.0025	ND<0.005	ND<0.0025	--	--	--	<b>0.0059</b>	ND<0.001	
	12/18/1996	ND<0.002	ND<0.002	--	<b>0.012</b>	--	--	ND<0.002	ND<0.002	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	--	<b>0.011</b>	--	
	1/14/1998	ND<0.005	ND<0.005	--	<b>0.006</b>	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	<b>0.027</b>	ND<0.005
	8/20/1998	NS	NS	--	NS	--	--	NS	NS	NS	--	NS	NS	NS	NS	NS	NS	NS	
W-4	3/1/1990	ND<0.0005	--	--	--	--	--	--	--	--	ND<0.0005	ND<0.0005	ND<0.0005	--	--	--	ND<0.0005	ND<0.0005	
	4/1/1990	ND<0.002	--	--	--	--	--	--	--	--	ND<0.001	ND<0.001	ND<0.001	--	--	--	<b>0.0043</b>	ND<0.001	
	12/18/1996	ND<0.005	ND<0.005	--	<b>0.018</b>	--	--	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	<b>0.01</b>	--	
	1/14/1998	ND<0.005	ND<0.005	--	<b>0.027</b>	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	<b>0.016</b>	ND<0.005
	8/20/1998	ND<0.005	ND<0.005	--	<b>0.025</b>	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	<b>0.0098</b>	ND<0.005
	1/29/1999	ND<0.005	ND<0.005	--	<b>0.016</b>	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	<b>0.011</b>	ND<0.005
	7/19/1999	ND<0.02	ND<0.002	--	<b>0.015</b>	--	--	ND<0.02	ND<0.002	<b>0.0027</b>	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	--	ND<0.001	ND<0.002
	1/13/2000	ND<0.01	ND<0.001	--	<b>0.016</b>	--	--	ND<0.01	ND<0.001	<b>0.0014</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	<b>0.013</b>	ND<0.001
	8/3/2000	ND<0.01	ND<0.001	ND<0.001	<b>0.023</b>	ND<0.01	ND<0.01	ND<0.01	ND<0.001	<b>0.0015</b>	ND<0.01	ND<0.001	<b>0.0012</b>	ND<0.01	ND<0.001	ND<0.001	--	<b>0.012</b>	ND<0.001
	2/8/2001	ND<0.01	ND<0.001	--	<b>0.003</b>	--	--	ND<0.01	ND<0.001	<b>0.0011</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	<b>0.007</b>	ND<0.001
	7/26/2001	ND<0.01	ND<0.001	--	<b>0.0057</b>														

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

FORMER CENCO REFINERY  
 SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4 TMB	1,3,5 TMB	TOX	VC	CB
MW-601	12/19/1996	ND<0.5	ND<0.5	--	ND<0.5	--	--	ND<0.5	ND<0.5	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	ND<1	--	
Abandoned	1/22/1998	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	8/20/1998	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1/28/1999	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-601A	7/19/1999	ND<50	ND<5	--	ND<5	--	--	ND<50	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	<25	ND<5	
	1/13/2000	ND<10	ND<1	--	ND<1	--	--	ND<10	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<0.5	ND<1	
	8/3/2000	ND<0.2	ND<0.2	--	ND<0.2	--	--	<b>0.069</b>	ND<0.2	ND<0.2	ND<0.01	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	--	ND<0.1	
	2/7/2001	ND<0.5	ND<0.05	ND<0.2	<b>0.13</b>	<b>0.015</b>	<b>0.025</b>	ND<0.5	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	ND<0.05	
	7/24/2001	ND<0.1	ND<0.1	ND<0.05	<b>0.0018</b>	--	--	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	--	ND<0.1	
	5/9/2002	ND<0.1	ND<0.1	ND<100	<b>0.15</b>	--	--	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	--	ND<0.05	
	9/26/2002	ND<1	ND<0.1	ND<100	<b>0.2</b>	--	--	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	--	ND<0.1	
	5/9/2002DUP	ND<1	ND<0.1	ND<100	<b>0.17</b>	--	--	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	--	ND<0.05	
	9/26/2002DUP	ND<1	ND<0.1	ND<100	<b>0.11</b>	--	--	ND<1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	--	ND<0.05	
MW-603	12/1/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/30/1996	ND<0.0003	--	--	--	--	--	--	--	<b>0.053</b>	ND<0.0003	<b>0.056</b>	--	--	--	--	<b>0.00045</b>	--	
	12/16/1996	<b>0.006</b>	ND<0.005	--	ND<0.005	--	--	ND<0.005	ND<0.005	--	<b>0.037</b>	ND<0.005	<b>0.056</b>	ND<0.005	ND<0.005	--	ND<0.01	--	
	1/22/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	<b>0.059</b>	ND<0.005	<b>0.089</b>	ND<0.005	ND<0.005	--	ND<0.01	
	8/19/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	<b>0.013</b>	ND<0.005	<b>0.031</b>	ND<0.005	ND<0.005	--	ND<0.01	
	1/27/1999	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	<b>0.025</b>	ND<0.005	<b>0.042</b>	ND<0.005	ND<0.005	--	ND<0.01	
	7/19/1999	ND<0.01	ND<0.01	--	ND<0.001	--	--	ND<0.01	ND<0.001	ND<0.001	--	<b>0.037</b>	ND<0.001	<b>0.062</b>	ND<0.001	ND<0.001	--	ND<0.0005	
	1/11/2000	ND<0.01	ND<0.001	ND<0.001	ND<0.011	ND<0.011	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	<b>0.056</b>	ND<0.001	<b>0.074</b>	ND<0.001	ND<0.001	--	ND<0.0005	
	7/31/2000	ND<0.01	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	<b>0.095</b>	ND<0.001	<b>0.11</b>	ND<0.001	ND<0.001	--	ND<0.001	
	2/7/2001	ND<0.01	ND<0.001	--	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.089</b>	ND<0.001	<b>0.028</b>	<b>0.14</b>	ND<0.001	ND<0.001	<b>0.00096</b>	ND<0.001
	7/24/2001	ND<0.01	ND<0.001	--	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	<b>0.11</b>	ND<0.001	<b>0.0083</b>	<b>0.21</b>	ND<0.001	ND<0.001	--	ND<0.0005
	5/7/2002	ND<0.002	ND<0.002	ND<2	ND<0.002	--	--	ND<0.02	ND<0.002	ND<0.002	--	<b>0.17</b>	ND<0.002	<b>0.034</b>	<b>0.16</b>	ND<0.002	ND<0.002	--	ND<0.001
	9/24/2002	ND<0.002	ND<0.002	ND<2	ND<0.002	--	--	ND<0.02	ND<0.002	ND<0.002	--	<b>0.21</b>	ND<0.002	<b>0.0053</b>	<b>0.21</b>	ND<0.002	ND<0.002	<b>0.0016</b>	ND<0.002
	7/1/2004	ND<0.005	ND<0.005	<b>0.002J</b>	--	--	<b>0.002J</b>	--	ND<0.005	--	<b>0.12</b>	ND<0.005	<b>0.03J</b>	<b>0.087</b>	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005
MW-604	12/20/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/30/1996	ND<0.0003	--	--	--	--	--	--	--	ND<0.0003	ND<0.0003	ND<0.0003	--	--	--	--	ND<0.0003	--	
	12/17/1996	ND<0.002	--	<b>0.0036</b>	--	--	ND<0.002	ND<0.002	<b>0.0022</b>	--	<b>&lt;0.020</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.002	--	ND<0.004	--	
	1/22/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	<b>0.005</b>	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	--	
	8/19/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	<b>0.005</b>	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	
	1/27/1999	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	<b>0.005</b>	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	
	7/19/1999	ND<0.01	ND<0.001	--	<b>0.0013</b>	--	--	ND<0.01	ND<0.001	<b>0.0026</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.0005	
	1/11/2000	ND<0.01	ND<0.001	--	<b>0.0082</b>	--	--	ND<0.01	ND<0.001	<b>0.0043</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.0005	
	8/3/2000	ND<0.01	ND<0.001	ND<0.001	<b>0.0011</b>	ND<0.01	ND<0.01	ND<0.01	ND<0.001	<b>0.0056</b>	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.001		
	2/7/2001	ND<0.05	ND<0.005	ND<0.005	<b>0.025</b>	--	--	ND<0.05	ND<0.005	ND<0.005	--	<b>0.025</b>	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	<b>0.0068</b>	
	7/24/2001	ND<0.001	<b>0.0021</b>	--	<b>0.034</b>	--	--	ND<0.01	ND<0.0										

**TABLE D2-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4 TMB	1,3,5 TMB	TOX	VC	CB
MW-607	8/19/1998	ND<0.005	ND<0.005	--	ND<0.005	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	
	1/27/1999	ND<0.005	ND<0.005	--	<b>0.025</b>	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	
	7/19/1999	ND<0.05	<b>0.0055</b>	--	<b>0.02</b>	--	--	ND<0.05	ND<0.005	<b>0.0052</b>	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.0025	ND<0.005	
	1/11/2000	ND<0.02	ND<0.002	--	<b>0.0073</b>	--	--	ND<0.02	ND<0.002	<b>0.0033</b>	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	--	ND<0.001	ND<0.002	
	7/31/2000	ND<0.02	ND<0.002	ND<0.002	<b>0.0038</b>	ND<0.011	ND<0.011	ND<0.01	ND<0.002	<b>0.0041</b>	ND<0.01	ND<0.002	ND<0.002	ND<0.002	ND<0.002	--	<b>0.0011</b>	ND<0.002	
	2/7/2001	ND<0.01	ND<0.001	ND<0.001	<b>0.0013</b>	--	--	ND<0.01	ND<0.001	<b>0.0025</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	<b>0.00055</b>	ND<0.001	
	7/24/2001	ND<0.01	ND<0.001	--	<b>0.0024</b>	--	--	ND<0.01	ND<0.001	<b>0.0033</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.001	
	5/7/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	--	--	ND<0.01	ND<0.001	<b>0.0037</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.002	--	ND<0.0005	ND<0.001	
	9/24/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	--	--	ND<0.01	ND<0.001	<b>0.0036</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.003	--	ND<0.0005	ND<0.001	
	5/7/2002DUP	ND<0.01	ND<0.001	ND<1	ND<0.001	--	--	ND<0.01	ND<0.001	<b>0.0037</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.003	--	ND<0.0005	ND<0.001	
	9/24/2002DUP	ND<0.01	ND<0.001	ND<1	ND<0.001	--	--	ND<0.01	ND<0.001	<b>0.0035</b>	--	ND<0.001	ND<0.001	ND<0.001	ND<0.003	--	ND<0.0005	ND<0.001	
	6/30/2004	ND<0.005	ND<0.005	ND<0.005	<b>0.019</b>	--	--	ND<0.005	--	<b>0.005J</b>	--	ND<0.005	ND<0.005	ND<0.005	<b>0.003J</b>	--	<b>0.003J</b>	ND<0.005	
MW-A	2/20/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND<0.25	
Abandoned	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-B	2/25/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND<0.0005	
Abandoned	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-I	2/19/1991	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND<0.05	
Abandoned	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-C	3/31/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Abandoned	7/11/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	10/5/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/8/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/7/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/17/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-D	3/31/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Abandoned	7/11/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	10/5/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/8/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/7/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/17/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-E	3/31/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Abandoned	7/11/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	10/5/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/8/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/7/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/17/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

**NOTES:**

Table recreated from Versar, Inc. Revised Master Work Plan, CENCO Refining Company, Santa Fe Springs, California, dated January 28, 2000

All concentrations reported in milligrams per liter (mg/L)

Blank - Not analyzed

ND<0.001 - Not detected above the laboratory reporting limit shown

\* - Sample was analyzed by both EPA Methods 8010/8020 and 8240; highest detection value of the two analyses is shown

NS - Not sampled due to well damage, free product in well, or not scheduled for sampling

(A) - EPA Method 601/8010

(B) - EPA Method 602/8020

Abbreviations:

TPH-g = Total petroleum hydrocarbons as gasoline (Method 8020)

TPH-d = Total petroleum hydrocarbons as diesel (Method 8015)

TRPH = ASTM Method 2887 (unless otherwise indicated)

MTBE = Methyl tertiary butyl ether

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

BDCM = Bromodichloromethane

BCM = Bromochloromethane

c-1,2-DCE = cis-1,2-Dichloroethene

CB = Chlorobenzene

1,2-DCB = 1,2-Dichlorobenzene

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethene

1,2-DCP = 1,2-Dichloropropane

iso-PB = iso-Propylbenzene

MC = Methylene chloride

n-BB = n-Butylbenzene

n-PB = n-Propylbenzene

p-iso-PT = p-iso-Propyltoluene

sec-BB = sec-Butylbenzene

PCE = Tetrachloroethene

t-1,2-DCE = trans-1,2-Dichloroethene

TCE = Trichloroethene

1,2,4-TMB = 1,2,4-Trimethylbenzene

1,3,5-TMB = 1,3,5-Trimethylbenzene

TOX = Total halogenated volatile organics (ASTM Method 2885)

VC = Vinyl chloride

**TABLE D-2B**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (ARCADIS BBL)**

**FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	TPH-g	Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-ButylBenzene	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	c-1,2-Dichloroethene	
<b>Operational Area 1: Bloomfield Property</b>																	
MW-106A	8/2/2006	0.31	NA	0.0026	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.013	
	11/9/2006	0.082	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.014	
	2/8/2007	0.27	NA	0.0026	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.015	
	5/10/2007	0.21	NA	0.0015 J	ND<0.005	0.0014 J	0.00073 J	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	0.0006 J	ND<0.002	ND<0.005	0.0099	
MW-107A	8/2/2006	0.77	NA	0.0037	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.0039	
	11/9/2006	0.78	NA	0.024	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.0062	
	2/8/2007	0.5	NA	0.08	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.0096	
	5/10/2007	0.67	NA	0.042	0.00087 J	0.0027 J	0.00039 J	ND<0.002	ND<0.005	ND<0.002	0.0025 J	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.0066	
MW-203	8/2/2006	0.24	NA	0.0031	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.018	
	11/9/2006	0.26	NA	0.0025	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.02	
	2/8/2007	0.15	NA	0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.021	
	5/10/2007	0.17	NA	0.001 J	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	0.00075 J	ND<0.002	ND<0.005	0.014	
<b>Operational Area 2: East Tank Farm Area</b>																	
MW-103	8/3/2006	0.35	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	11/8/2006	0.43	NA	0.0041	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	2/8/2007	0.36	NA	0.036	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	5/9/2007	0.22	NA	0.00051 J	ND<0.005	0.0019 J	0.00039 J	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	0.00032 J	ND<0.005	0.0093 J	
MW-204	10/7/2005	0.34	ND<0.01	0.0057	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0016	ND<0.001	0.0034	
	2/15/2006	0.111	ND<0.1	0.0015	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.0026	
	8/1/2006	0.26	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.0039	
	11/10/2006	0.081	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.0055	
	2/7/2007	0.36	NA	0.0049	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.0028	
W-7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/6/2006	ND<0.1	ND<0.01	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	
	2/16/2006	0.0609	ND<0.1	ND<0.001	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	8/4/2006	ND<0.05	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	11/10/2006	ND<0.05	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	5/8/2007	0.031 J	NA	0.00041 J	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	0.00041 J	ND<0.002	ND<0.005	ND<0.002	
W-12	11/8/2006	1.4	NA	0.016	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.0054	
	2/7/2007	4.8	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.0068	
W-12	5/9/2007	0.22	NA	ND<0.002	ND<0.005	0.00061 J	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	0.00037 J	ND<0.005	0.0043	
	<b>Operational Area 3: Processing Area</b>																
	MW-104A	10/7/2005	ND<0.1	ND<0.01	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	0.0034	
		2/15/2006	ND<0.05	ND<0.1	ND<0.001	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.002	
		2/7/2007	0.54	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
		5/8/2007	0.033 J	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	0.0018 J	
MW-504	2/16/2006	18	ND<1	0.675	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	
	8/3/2006	10	NA	1.5	ND<0.005	0.0054	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	0.0039	ND<0.005	0.002
	11/10/2006	6.2	NA	1	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	2/9/2007	6.1	NA	0.14	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	5/11/2007	13	NA	1.5	ND<0.1	0.01 J	ND<0.1	ND<0.04	ND<0.1	ND<0.04	ND<0.1	ND<0.04	ND<0.04	ND<0.04	ND<0.1	ND<0.04	
W-9	11/7/2006	ND<0.05	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	2/6/2007	0.067	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
W-10	5/9/2007	0.05	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	0.002	
	11/8/2006	26	NA	8.2	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	2/9/2007	28	NA	6.4	ND<0.5	ND<0.5	ND<0.5	ND<0.2	ND<0.5	ND<0.2	ND<0.5	ND<0.2	ND<0.2	ND<0.2	ND<0.5	ND<0.2	

TABLE D2-B  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS  
SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (ARCADIS BBL)

FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPH-g	Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-ButylBenzene	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	c-1,2-Dichloroethene
MW-201	10/7/2005	3.4	0.093	0.74	ND<0.005	0.016	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.034	ND<0.005	0.049	
	2/15/2006	1.89	ND<0.1	0.128	ND<0.005	0.0011	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.0081	
	8/2/2006	1	NA	0.073	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	0.013	
	11/9/2006	1.1	NA	0.058	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	0.0051	ND<0.002	ND<0.005	0.025
	2/7/2007	1.1	NA	0.094	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	0.025	
	5/9/2007	0.83	NA	0.047	ND<0.005	0.00069 J	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	0.0004 J	0.00083 J	0.0031 J	0.038
MW-205	10/6/2005	0.85	0.017	0.055	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.0005	ND<0.001	0.0042
	2/15/2006	0.411	ND<0.1	0.035	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.019	
	8/2/2006	0.56	NA	0.04	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	0.035	
	11/8/2006	0.36	NA	0.007	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	0.048	
	2/7/2007	0.15	NA	0.024	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	0.032	
	5/9/2007	0.19	NA	0.0074	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	0.00054 J	0.00095 J	0.04	
W-8	10/6/2005	0.22	ND<0.01	0.00052	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	
	2/16/2006	0.192	ND<0.1	ND<0.001	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	8/4/2006	0.13	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	11/10/2006	0.21	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	2/9/2007	0.13	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	5/8/2007	0.11	NA	0.00049 J	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
W-11	11/9/2006	5.2	NA	0.099	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	0.018	
	DUP	12	NA	0.096	0.006	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	0.018	
	2/9/2007	8	NA	0.095	ND<0.01	ND<0.01	ND<0.01	ND<0.004	ND<0.01	ND<0.004	ND<0.01	ND<0.004	ND<0.004	ND<0.01	0.015	
	5/9/2007	0.54	NA	0.045	ND<0.005	0.00052 J	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	0.018	
<b>Operational Area 5: Lakeland Property</b>																
MW-501A	8/3/2006	24	NA	6.3	0.032	0.024	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	11/10/2006	13	NA	3.3	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.005	ND<0.002	
	2/12/2007	13	NA	3.8	ND<0.1	ND<0.1	ND<0.1	ND<0.04	ND<0.1	ND<0.04	ND<0.1	ND<0.04	ND<0.1	ND<0.1	ND<0.04	
	5/11/2007	9.1	NA	2	0.022 J	0.016 J	ND<0.25	ND<0.1	ND<0.25	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.25	ND<0.1	
MW-502	10/5/2005	15	ND<0.1	0.9	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	
	2/14/2006	47.6	ND<1	1.28	0.032	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	
	8/4/2006	20	NA	2.5	0.011	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	11/10/2006	35	NA	1.8	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	2/9/2007	15	NA	2.2	ND<1	ND<1	ND<1	ND<0.4	ND<1	ND<0.4	ND<1	ND<0.4	ND<1	ND<0.4	ND<0.4	
	5/11/2007	25	NA	4	ND<0.5	ND<0.5	ND<0.5	ND<0.2	ND<0.5	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.5	ND<0.2	
MW-503B	10/5/2005	5.4	ND<0.2	1.1	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02	
	2/14/2006	5.45	ND<1	0.331	ND<0.05	0.018	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	
	8/4/2006	4.7	NA	0.031	ND<0.005	0.018	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	0.0072	
	11/10/2006	3.5	NA	0.026	0.021	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	0.	

**TABLE D2-B**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (ARCADIS BBL)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	TPH-g	Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-ButylBenzene	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	c-1,2-Dichloroethene
MW-604	11/7/2006	<b>0.33</b>	NA	<b>0.072</b>	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	2/7/2007	<b>0.54</b>	NA	<b>0.0098</b>	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	
	5/8/2007	<b>0.48</b>	NA	<b>0.0044</b>	<b>0.0012 J</b>	<b>0.0027 J</b>	<b>0.00086 J</b>	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
MW-605	10/5/2005	ND<0.1	ND<0.01	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	
	DUP	ND<0.1	ND<0.01	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	
	2/14/2006	<b>0.053</b>	ND<0.1	ND<0.001	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	DUP	ND<0.05	ND<0.1	ND<0.001	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	8/1/2006	ND<0.05	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	DUP	ND<0.05	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	11/7/2006	ND<0.05	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
MW-606	2/6/2007	ND<0.06	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	DUP	ND<0.07	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	5/8/2007	<b>0.035 J</b>	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	<b>0.0068 J</b>	ND<0.002	<b>0.0037 J</b>	
	DUP	<b>0.038 J</b>	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	ND<0.002	ND<0.005	ND<0.002	<b>0.00074 J</b>	ND<0.002	<b>0.0016 J</b>	
	10/5/2005	<b>0.24</b>	<b>0.015</b>	<b>0.0056</b>	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	
MW-607	2/14/2006	ND<0.05	ND<0.1	ND<0.001	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.0024</b>	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	8/1/2006	ND<0.05	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	<b>0.0024</b>	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	11/7/2006	ND<0.05	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	<b>0.0026</b>	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	2/6/2007	ND<0.06	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	<b>0.0026</b>	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	
	5/8/2007	ND<0.05	NA	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.002	ND<0.005	<b>0.0022</b>	ND<0.005	ND<0.002	ND<0.002	ND<0.005	ND<0.002	

**NOTES:**

All concentrations reported in milligrams per liter (mg/L)

NA - Not analyzed

ND< - Not detected above the laboratory reporting limit shown

NS - Not sampled

TPH-g - Total petroleum hydrocarbons as gasoline

J - Analyte estimated concentration below reporting limit

TABLE D2-B  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS  
SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (ARCADIS BBL)

FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	t-1,2-Dichloroethene	1,2-Dichloropropane	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Methylene Chloride	Naphthalene	n-Propylbenzene	Tetrachloroethene	Toluene	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trichloropropane
<b>Operational Area 1: Bloomfield Property</b>															
MW-106A	8/2/2006	<b>0.021</b>	ND<0.002	ND<0.002	<b>0.0075</b>	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	11/9/2006	<b>0.017</b>	ND<0.002	ND<0.002	<b>0.0031</b>	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	2/8/2007	<b>0.02</b>	ND<0.002	ND<0.002	<b>0.0096</b>	ND<0.002	ND<0.005	ND<0.005	<b>0.0059</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	5/10/2007	<b>0.012</b>	ND<0.002	<b>0.00028 J</b>	<b>0.0065</b>	<b>0.00044 J</b>	ND<0.005	ND<0.005	<b>0.0017 J</b>	ND<0.002	ND<0.002	<b>0.00028 J</b>	ND<0.005	ND<0.01	
MW-107A	8/2/2006	<b>0.021</b>	ND<0.002	<b>0.02</b>	ND<0.002	ND<0.005	ND<0.005	ND<0.005	<b>0.016</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	11/9/2006	<b>0.0053</b>	ND<0.002	<b>0.0047</b>	<b>0.022</b>	ND<0.002	ND<0.005	ND<0.005	<b>0.018</b>	ND<0.002	ND<0.002	<b>0.0025</b>	ND<0.005	ND<0.01	
	2/8/2007	<b>0.0074</b>	ND<0.002	<b>0.021</b>	<b>0.017</b>	ND<0.002	ND<0.005	<b>0.0074</b>	<b>0.017</b>	ND<0.002	ND<0.002	<b>0.0039</b>	ND<0.005	ND<0.01	
	5/10/2007	<b>0.006</b>	ND<0.002	<b>0.014</b>	<b>0.02</b>	ND<0.002	ND<0.005	<b>0.006</b>	<b>0.015</b>	ND<0.002	<b>0.001 J</b>	ND<0.002	<b>0.0035</b>	ND<0.005	ND<0.01
MW-203	8/2/2006	<b>0.0044</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	11/9/2006	<b>0.0048</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	2/8/2007	<b>0.0034</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	5/10/2007	<b>0.0028</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
<b>Operational Area 2: East Tank Farm Area</b>															
MW-103	8/3/2006	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	11/8/2006	ND<0.002	ND<0.002	ND<0.002	<b>0.0031</b>	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	2/8/2007	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	5/9/2007	ND<0.002	ND<0.002	ND<0.002	ND<0.002	<b>0.0026</b>	<b>0.0015 J</b>	ND<0.005	<b>0.0024</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
MW-204	10/7/2005	ND<0.001	ND<0.001	<b>0.0042</b>	<b>0.0011</b>	ND<0.001	ND<0.01	ND<0.01	<b>0.0011</b>	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.005	
	2/15/2006	ND<0.005	ND<0.005	<b>0.0025</b>	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	8/1/2006	ND<0.002	ND<0.002	<b>0.0095</b>	ND<0.002	ND<0.002	ND<0.005	ND<0.005	<b>0.002</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	11/10/2006	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	2/7/2007	ND<0.002	ND<0.002	<b>0.011</b>	ND<0.002	ND<0.002	ND<0.005	<b>0.0056</b>	<b>0.0021</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
W-7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/6/2006	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.005	
	2/16/2006	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	8/4/2006	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	11/10/2006	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
W-12	2/9/2007	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	5/8/2007	ND<0.002	ND<0.002	<b>0.00087 J</b>	ND<0.002	ND<0.002	ND<0.005	<b>0.0009 J</b>	ND<0.002	ND<0.002	<b>0.00045 J</b>	ND<0.002	ND<0.002	ND<0.005	
	11/8/2006	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	<b>0.007</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
W-12	2/7/2007	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	5/9/2007	<b>0.00031 J</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	<b>0.0017 J</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
<b>Operational Area 3: Processing Area</b>															
MW-104A	10/7/2005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.005	
	2/15/2006	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	2/7/2007	ND<0.002	ND												

TABLE D2-B  
HISTORICAL GROUNDWATER ANALYTICAL RESULTS  
SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (ARCADIS BBL)

FORMER CENCO REFINERY  
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	t-1,2-Dichloroethene	1,2-Dichloropropane	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Methylene Chloride	Naphthalene	n-Propylbenzene	Tetrachloroethene	Toluene	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trichloropropane
MW-201	10/7/2005	ND<0.005	ND<0.005	0.47	0.085	0.021	ND<0.005	0.12	0.086	ND<0.005	0.037	ND<0.005	ND<0.005	ND<0.005	ND<0.005
	2/15/2006	ND<0.005	ND<0.005	0.015	0.0053	ND<0.005	ND<0.005	ND<0.005	0.0033	ND<0.005	0.0025	ND<0.005	0.0016	ND<0.005	ND<0.005
	8/2/2006	ND<0.002	ND<0.002	0.0082	0.0043	ND<0.002	ND<0.005	ND<0.005	0.003	ND<0.002	ND<0.002	ND<0.002	0.013	ND<0.005	ND<0.01
	11/9/2006	ND<0.002	ND<0.002	0.049	0.013	0.0033	ND<0.005	0.022	0.016	ND<0.002	0.0034	ND<0.002	0.03	ND<0.005	ND<0.01
	2/7/2007	ND<0.002	ND<0.002	0.0086	0.003	ND<0.002	ND<0.005	ND<0.005	0.0023	ND<0.002	ND<0.002	ND<0.002	0.0074	ND<0.005	ND<0.01
	5/9/2007	ND<0.002	ND<0.002	0.004	0.0027	0.00034 J	0.0017 J	ND<0.005	0.0013 J	ND<0.002	ND<0.002	0.00067 J	0.0085	ND<0.005	ND<0.01
MW-205	10/6/2005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.002	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001
	2/15/2006	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.001	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
	8/2/2006	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.01
	11/8/2006	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.01
	2/7/2007	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.01
	5/9/2007	0.00085 J	ND<0.002	ND<0.002	ND<0.002	ND<0.002	0.0016 J	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.01
W-8	10/6/2005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001
	2/16/2006	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.001	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
	8/4/2006	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.01
	11/10/2006	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.01
	2/9/2007	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.01
	5/8/2007	0.00033 J	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	0.00073 J	ND<0.002	ND<0.005	ND<0.005	ND<0.01
W-11	11/9/2006	ND<0.002	ND<0.002	0.074	0.015	0.0032	ND<0.005	ND<0.005	0.018	ND<0.002	0.012	ND<0.002	ND<0.002	ND<0.005	ND<0.01
	DUP	ND<0.002	ND<0.002	0.054	0.012	0.003	ND<0.005	ND<0.005	0.016	ND<0.002	0.0078	ND<0.002	ND<0.002	ND<0.005	ND<0.01
	2/9/2007	ND<0.004	ND<0.004	0.078	0.017	ND<0.004	ND<0.01	ND<0.01	0.012	ND<0.004	0.014	ND<0.004	ND<0.004	ND<0.01	ND<0.02
	5/9/2007	0.00041 J	ND<0.002	0.019	0.004	ND<0.002	0.0026 J	0.00068 J	0.0035	ND<0.002	0.0016 J	ND<0.002	ND<0.002	ND<0.005	ND<0.01
<b>Operational Area 5: Lakeland Property</b>															
8/3/2006	ND<0.002	ND<0.002	0.17	0.12	ND<0.002	ND<0.005	0.032	0.14	ND<0.002	0.032	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
MW-501A	11/10/2006	ND<0.002	ND<0.002	0.1	0.14	ND<0.002	ND<0.005	ND<0.005	0.25	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	ND<0.01
	2/12/2007	ND<0.04	ND<0.04	0.13	0.16	ND<0.04	ND<0.1	ND<0.1	0.38	ND<0.04	ND<0.04	ND<0.04	ND<0.1	ND<0.2	ND<0.2
	5/11/2007	ND<0.1	ND<0.1	0.084 J	0.13 J	ND<0.1	ND<0.25	ND<0.25	0.25	ND<0.1	ND<0.1	ND<0.1	ND<0.25	ND<0.5	ND<0.5
	10/5/2005	ND<0.1	ND<0.1	0.43	ND<0.1	ND<0.1	ND<0.1	ND<0.1	0.11	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
MW-502	2/14/2006	ND<0.05	ND<0.05	0.616	0.087	ND<0.05	ND<0.05	0.183	0.117	ND<0.05	0.032	ND<0.05	ND<0.05	ND<0.05	ND<0.05
	8/4/2006	ND<0.002	ND<0.002	0.16	0.055	0.0094	ND<0.005	0.13	0.052	ND<0.002	0.038	ND<0.002	ND<0.005	ND<0.01	ND<0.01
	11/10/2006	ND<0.002	ND<0.002	0.82	0.15	ND<0.002	ND<0.005	0.29	0.18	ND<0.002	0.051	ND<0.002	ND<0.005	ND<0.01	ND<0.01
	2/9/2007	ND<0.4	ND<0.4	0.5	ND<0.4	ND<0.4	ND<1	ND<1	ND<0.4	ND<0.4	ND<0.4	ND<0.4	ND<1	ND<2	ND<2
	5/11/2007	ND<0.2	ND<0.2	0.5	0.063 J	ND<0.2	ND<0.5	0.17 J	0.065 J	ND<0.2	0.059 J	ND<0.2	ND<0.2	ND<0.5	ND<1
MW-503B	10/5/2005	ND<0.02	ND<0.02	0.073	0.061	ND<0.02	ND<0.02	ND<0.2	0.09	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02
	2/14/2006	ND<0.05	ND<0.05	0.012	0.069	ND<0.05	ND<0.05	ND<0.05	0.056	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05
	8/4/2006	0.0031	ND<0.002	0.0035	0.047	ND<0.002	ND<0.005	ND<0.005	0.029	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	0.0

**TABLE D2-B**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (ARCADIS BBL)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	t-1,2-Dichloroethene	1,2-Dichloropropane	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Methylene Chloride	Naphthalene	n-Propylbenzene	Tetrachloroethene	Toluene	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trichloropropane
MW-604	11/7/2006	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	2/7/2007	ND<0.002	ND<0.002	ND<0.002	<b>0.01</b>	ND<0.002	ND<0.005	ND<0.005	<b>0.007</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	
	5/8/2007	ND<0.002	ND<0.002	ND<0.002	<b>0.013</b>	ND<0.002	ND<0.005	ND<0.005	<b>0.0074</b>	ND<0.002	<b>0.00038 J</b>	ND<0.002	ND<0.002	ND<0.005	ND<0.01
MW-605	10/5/2005 DUP	ND<0.001 ND<0.001	ND<0.001 ND<0.001	ND<0.001 ND<0.001	ND<0.001 ND<0.001	ND<0.001 ND<0.001	ND<0.001 ND<0.001	ND<0.001 ND<0.001	ND<0.001 ND<0.001	<b>0.0043</b> <b>0.0045</b>	ND<0.001 ND<0.001	ND<0.001 ND<0.001	<b>0.02</b> <b>0.02</b>	ND<0.001 ND<0.001	ND<0.001 ND<0.001
	2/14/2006 DUP	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.005 ND<0.005	<b>0.0053</b> <b>0.0042</b>	ND<0.005 ND<0.005	ND<0.005 ND<0.005	<b>0.021</b> <b>0.017</b>	ND<0.005 ND<0.005	ND<0.005 ND<0.005
	8/1/2006 DUP	ND<0.002 ND<0.002	ND<0.002 ND<0.002	ND<0.002 ND<0.002	ND<0.002 ND<0.002	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.002 ND<0.002	<b>0.0085</b> <b>0.0092</b>	ND<0.002 ND<0.002	ND<0.002 ND<0.002	<b>0.026</b> <b>0.026</b>	ND<0.005 ND<0.005	ND<0.01 ND<0.01
	11/7/2006 DUP	ND<0.002 ND<0.002	ND<0.002 ND<0.002	ND<0.002 ND<0.002	ND<0.002 ND<0.002	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.002 ND<0.002	<b>0.02</b> <b>0.021</b>	ND<0.002 ND<0.002	ND<0.002 ND<0.002	<b>0.029</b> <b>0.029</b>	ND<0.005 ND<0.005	ND<0.01 ND<0.01
	2/6/2007 DUP	ND<0.002 ND<0.002	ND<0.002 ND<0.002	ND<0.002 ND<0.002	ND<0.002 ND<0.002	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.002 ND<0.002	<b>0.035</b> <b>0.038</b>	ND<0.002 ND<0.002	ND<0.002 ND<0.002	<b>0.035</b> <b>0.034</b>	ND<0.005 ND<0.005	ND<0.01 ND<0.01
	5/8/2007 DUP	ND<0.002 ND<0.002	<b>0.0007 J</b> <b>0.00061 J</b>	ND<0.002 ND<0.002	ND<0.002 ND<0.002	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.005 ND<0.005	ND<0.002 ND<0.002	<b>0.04</b> <b>0.045</b>	ND<0.002 ND<0.002	ND<0.002 ND<0.002	<b>0.033</b> <b>0.035</b>	ND<0.005 ND<0.005	ND<0.01 ND<0.01
	10/5/2005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001
	2/14/2006	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	<b>0.0038</b>	ND<0.005	ND<0.005
MW-606	8/1/2006	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	ND<0.01
	11/7/2006	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	<b>0.0067</b>	ND<0.002	ND<0.002	ND<0.005	ND<0.01	ND<0.01
	2/6/2007	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	ND<0.01
	5/8/2007	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	<b>0.0035 J</b>	ND<0.01	ND<0.01
	10/5/2005	ND<0.001	ND<0.001	<b>0.0091</b>	ND<0.001	ND<0.001	ND<0.01	<b>0.012</b>	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001
MW-607	2/14/2006	ND<0.005	ND<0.005	ND<0.005	<b>0.008</b>	ND<0.005	ND<0.005	ND<0.005	<b>0.011</b>	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005
	8/1/2006	ND<0.002	ND<0.002	ND<0.002	<b>0.0066</b>	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	ND<0.01
	11/7/2006	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01	ND<0.01
	2/6/2007	ND<0.002	ND<0.002	ND<0.002	<b>0.0068</b>	ND<0.002	ND<0.005	ND<0.002	ND<0.002	<b>0.013</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01
	5/8/2007	ND<0.002	ND<0.002	ND<0.002	<b>0.0032</b>	ND<0.002	ND<0.005	ND<0.002	ND<0.002	<b>0.0019</b>	ND<0.002	ND<0.002	ND<0.002	ND<0.005	ND<0.01

**NOTES:**

All concentrations reported in milligrams per liter (mg/L)

NA - Not analyzed

ND< - Not detected above the laboratory reporting limit shown

NS - Not sampled

TPH-g - Total petroleum hydrocarbons as gasoline

J - Analyte estimated concentration below reporting limit

**TABLE D2-B**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (ARCADIS BBL)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	p/m-Xylene	o-Xylene	Total Xylenes	Tert-Amyl Methyl Ether (TAME)	Methyl tert-Butyl Ether (MTBE)	Tert-Butyl Alcohol (TBA)	Diisopropyl Ether (DIPE)	1,4-Dioxane
<b>Operational Area 1: Bloomfield Property</b>												
MW-106A	8/2/2006	ND<0.002	ND<0.002	<b>0.01</b>	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	11/9/2006	ND<0.002	ND<0.002	<b>0.007</b>	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	2/8/2007	ND<0.002	ND<0.002	<b>0.013</b>	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	<b>0.00061</b>
	5/10/2007	ND<0.002	ND<0.002	<b>0.0079</b>	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	<b>0.02 J</b>	<b>0.00036 J</b>	NA
MW-107A	8/2/2006	ND<0.002	ND<0.002	ND<0.005	<b>0.0034</b>	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	11/9/2006	ND<0.002	ND<0.002	ND<0.005	<b>0.0091</b>	ND<0.002	<b>0.0092</b>	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	2/8/2007	ND<0.002	ND<0.002	ND<0.005	<b>0.025</b>	ND<0.002	<b>0.026</b>	ND<0.005	ND<0.005	ND<0.05	ND<0.005	ND<0.0048
	5/10/2007	ND<0.002	<b>0.00029 J</b>	<b>0.002 J</b>	<b>0.017</b>	ND<0.002	<b>0.017</b>	ND<0.005	ND<0.005	<b>0.021 J</b>	ND<0.005	NA
MW-203	8/2/2006	ND<0.002	ND<0.002	<b>0.011</b>	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	11/9/2006	ND<0.002	ND<0.002	<b>0.01</b>	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	2/8/2007	ND<0.002	ND<0.002	<b>0.0097</b>	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	<b>0.0019</b>
	5/10/2007	ND<0.002	ND<0.002	<b>0.0078</b>	ND<0.002	ND<0.002	ND<0.004	ND<0.005	<b>0.0007 J</b>	<b>0.028 J</b>	<b>0.00041 J</b>	NA
	<b>Operational Area 2: East Tank Farm Area</b>											
MW-103	8/3/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	<b>0.071</b>	<b>0.2</b>	ND<0.005	NA
	11/8/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	<b>0.041</b>	<b>0.16</b>	ND<0.005	NA
	2/8/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	<b>0.026</b>	<b>0.19</b>	ND<0.005	<b>0.002</b>
	5/9/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	<b>0.012</b>	<b>0.085</b>	ND<0.005	NA
MW-204	10/7/2005	<b>0.0023</b>	<b>0.0012</b>	ND<0.0005	<b>0.0021</b>	ND<0.001	<b>0.0021</b>	ND<0.002	ND<0.001	<b>0.09</b>	ND<0.002	NA
	2/15/2006	<b>0.0026</b>	<b>0.0012</b>	ND<0.005	<b>0.0014</b>	ND<0.005	<b>0.0014</b>	ND<0.005	ND<0.001	<b>0.091</b>	ND<0.001	NA
	8/1/2006	<b>0.014</b>	<b>0.0067</b>	ND<0.005	<b>0.0081</b>	ND<0.002	<b>0.0082</b>	ND<0.005	ND<0.005	<b>0.067</b>	ND<0.005	NA
	11/10/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	2/7/2007	<b>0.025</b>	<b>0.016</b>	ND<0.005	<b>0.014</b>	ND<0.002	<b>0.015</b>	ND<0.005	ND<0.005	<b>0.064</b>	ND<0.005	<b>0.0014</b>
	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
W-7	10/6/2006	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	ND<0.002	ND<0.002	ND<0.001	ND<0.01	ND<0.002	NA
	2/16/2006	<b>0.0011</b>	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.001	ND<0.01	ND<0.001	NA
	8/4/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	11/10/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	2/9/2007	<b>0.0022</b>	ND<0.002	ND<0.005	<b>0.0026</b>	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	ND<0.0048
	5/8/2007	<b>0.0014 J</b>	<b>0.00035 J</b>	ND<0.005	<b>0.0014 J</b>	<b>0.00075 J</b>	<b>0.0022 J</b>	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
W-12	11/8/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	<b>0.055</b>	ND<0.005	NA
	2/7/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	<b>0.05</b>	ND<0.005	<b>0.001</b>
	5/9/2007	ND<0.002	ND<0.002	<b>0.0011 J</b>	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	<b>0.04 J</b>	ND<0.005	NA
<b>Operational Area 3: Processing Area</b>												
MW-104A	10/7/2005	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	ND<0.002	ND<0.002	ND<0.001	<b>0.083</b>	ND<0.002	NA
	2/15/2006	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.001	<b>0.03</b>	ND<0.001	NA
	2/7/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	<b>0.12</b>	ND<0.005	<b>0.00064</b>
	5/8/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	<b>0.34</b>	ND<0.005	NA
MW-504	2/16/2006	<b>0.152</b>	<b>0.106</b>	ND<0.05	<b>0.391</b>	<b>0.12</b>	<b>0.511</b>	ND<0.01	<b>0.013</b>	ND<0.1	ND<0.01	NA
	8/3/2006	<b>0.098</b>	<b>0.09</b>	ND<0.005	<b>0.36</b>	<b>0.13</b>	<b>0.49</b>	ND<0.005	<b>0.0093</b>	ND<0.05	ND<0.005	NA
	11/10/2006	<b>0.049</b>	<b>0.098</b>	ND<0.005	<b>0.22</b>	ND<0.002	<b>0.26</b>	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	2/9/2007	<b>0.038</b>	<b>0.064</b>	ND<0.005	<b>0.12</b>	<b>0.0085</b>	<b>0.13</b>	ND<0.005	ND<0.005	<b>0.098</b>	ND<0.005	<b>0.0045</b>
	5/11/2007	<b>0.13</b>	<b>0.11</b>	ND<0.1	<b>0.39</b>	<b>0.011 J</b>	<b>0.4</b>	ND<0.1	ND<0.1	ND<1	ND<0.1	NA

**TABLE D2-B**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (ARCADIS BBL)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	p/m-Xylene	o-Xylene	Total Xylenes	Tert-Amyl Methyl Ether (TAME)	Methyl tert-Butyl Ether (MTBE)	Tert-Butyl Alcohol (TBA)	Diisopropyl Ether (DIPE)	1,4-Dioxane
MW-201	10/7/2005	0.033	0.016	ND<0.0025	0.073	0.018	0.091	ND<0.005	ND<0.005	0.13	ND<0.01	NA
	2/15/2006	0.0012	ND<0.005	ND<0.005	0.0063	ND<0.005	0.0063	ND<0.001	ND<0.001	0.02	ND<0.001	NA
	8/2/2006	ND<0.002	ND<0.002	ND<0.005	0.0041	ND<0.002	0.0044	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	11/9/2006	0.0048	ND<0.002	ND<0.005	0.011	0.0029	0.013	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	2/7/2007	ND<0.002	ND<0.002	ND<0.005	0.0051	ND<0.002	0.0054	ND<0.005	ND<0.005	ND<0.05	ND<0.005	0.0011
	5/9/2007	ND<0.002	ND<0.002	0.00067 J	0.0026	ND<0.002	0.0028	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
MW-205	10/6/2005	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.002	NA
	2/15/2006	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.001	ND<0.001	ND<0.01	ND<0.001	NA
	8/2/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	11/8/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	2/7/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	0.00091
	5/9/2007	ND<0.002	ND<0.002	0.00041 J	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
W-8	10/6/2005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.002	NA
	2/16/2006	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.001	ND<0.001	ND<0.01	ND<0.001	NA
	8/4/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	11/10/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	2/9/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	ND<0.00051
	5/8/2007	ND<0.002	0.00023 J	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
W-11	11/9/2006	0.073	0.04	ND<0.005	0.24	0.037	0.28	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	DUP	0.06	0.034	ND<0.005	0.14	0.021	0.16	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	2/9/2007	0.056	0.028	ND<0.01	0.28	0.027	0.3	ND<0.01	ND<0.01	ND<0.1	ND<0.01	0.001
	5/9/2007	0.009	0.0044	0.00096 J	0.047	0.0031	0.051	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
<b>Operational Area 5: Lakeland Property</b>												
MW-501A	8/3/2006	0.0062	0.025	ND<0.005	0.05	0.0061	0.056	ND<0.005	0.7	0.084	ND<0.005	NA
	11/10/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	1.1	ND<0.05	ND<0.005	NA
	2/12/2007	ND<0.04	0.044	ND<0.1	ND<0.04	ND<0.04	ND<0.08	ND<0.1	1.1	ND<1	ND<0.1	0.013
	5/11/2007	ND<0.1	0.024 J	ND<0.25	ND<0.1	ND<0.1	ND<0.2	ND<0.25	0.64	ND<2.5	ND<0.25	NA
MW-502	10/5/2005	ND<0.1	0.11	ND<0.05	0.11	ND<0.1	ND<0.1	ND<0.1	15	ND<0.1	ND<0.2	NA
	2/14/2006	0.086	0.139	ND<0.05	0.182	ND<0.05	0.182	ND<0.01	29.3	ND<0.1	ND<0.01	NA
	8/4/2006	0.16	0.098	ND<0.005	0.73	ND<0.002	0.74	0.0069	29	0.79	ND<0.005	NA
	11/10/2006	0.11	0.24	ND<0.002	0.25	ND<0.002	0.26	ND<0.005	19	ND<0.05	ND<0.005	NA
	2/9/2007	ND<0.4	ND<0.4	ND<1	0.56	ND<0.4	ND<0.8	ND<1	23	ND<10	ND<1	0.0076
	5/11/2007	0.4	0.25	ND<0.5	0.72	ND<0.2	0.72	ND<0.5	29	ND<5	ND<0.5	NA
MW-503B	10/5/2005	ND<0.02	ND<0.02	ND<0.01	0.038	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.2	ND<0.04	NA
	2/14/2006	ND<0.05	ND<0.05	ND<0.05	ND<0.25	ND<0.25	ND<0.05	ND<0.01	ND<0.01	ND<0.1	ND<0.01	NA
	8/4/2006	ND<0.002	ND<0.002	0.0058	0.0021	0.002	0.0041	ND<0.005	0.0076	ND<0.05	ND<0.005	NA
	11/10/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	2/9/2007	ND<0.002	ND<0.002	0.0054	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	0.0076
	5/11/2007	ND<0.002	0.00061 J	0.0074	0.001 J	ND<0.002	0.0013 J	ND<0.005	0.0013 J	ND<0.05	ND<0.005	NA
<b>Operational Area 6: Former AST Area at Walker Property</b>												
W-3A	2/16/2006	0.018	0.016	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.001	0.0062	0.016	ND<0.001	NA
	8/3/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	0.009	ND<0.05	ND<0.005	NA
	11/9/2006	0.0064	0.0095	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	0.011	ND<0.05	ND<0.005	NA
	2/8/2007	0.0039	0.0061	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	0.0084	ND<0.05	ND<0.005	0.0019
	5/10/2007	0.0023	0.0036	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	0.0078	0.023 J	ND<0.005	NA
<b>Off-Site Wells: Walker Property</b>												
W-1	10/6/2005	ND<0.001	ND<0.									

**TABLE D2-B**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF TPH-g, VOCs, AND OXYGENATES RESULTS (ARCADIS BBL)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	p/m-Xylene	o-Xylene	Total Xylenes	Tert-Amyl Methyl Ether (TAME)	Methyl tert-Butyl Ether (MTBE)	Tert-Butyl Alcohol (TBA)	Diisopropyl Ether (DIPE)	1,4-Dioxane
MW-604	11/7/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	0.015	0.065	ND<0.005	NA
	2/7/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	0.02	0.06	ND<0.005	ND<0.0049
	5/8/2007	<b>0.00048 J</b>	<b>0.00026 J</b>	<b>0.00087 J</b>	<b>0.00081 J</b>	<b>0.00048 J</b>	<b>0.0013 J</b>	ND<0.005	0.018	0.057	ND<0.005	NA
MW-605	10/5/2005	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.002	NA
	DUP	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.002	NA
	2/14/2006	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.001	ND<0.001	ND<0.01	ND<0.001	NA
	DUP	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.001	ND<0.001	ND<0.01	ND<0.001	NA
	8/1/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	DUP	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	11/7/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
MW-606	2/6/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	<b>0.0015</b>
	DUP	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	<b>0.0016</b>
	5/8/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	DUP	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	10/5/2005	ND<0.001	ND<0.001	<b>0.0032</b>	ND<0.001	ND<0.001	ND<0.001	ND<0.001	<b>0.0048</b>	<b>0.042</b>	ND<0.002	NA
MW-607	2/14/2006	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.001	ND<0.001	ND<0.01	ND<0.001	NA
	8/1/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	11/7/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
	2/6/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	ND<0.0048
	5/8/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	ND<0.05	ND<0.005	NA
MW-607	10/5/2005	ND<0.001	ND<0.001	<b>0.0012</b>	ND<0.001	ND<0.001	ND<0.001	ND<0.001	<b>0.0017</b>	<b>0.074</b>	ND<0.002	NA
	2/14/2006	ND<0.005	ND<0.005	<b>0.001</b>	ND<0.005	ND<0.005	ND<0.005	ND<0.001	<b>0.0021</b>	<b>0.057</b>	ND<0.001	NA
	8/1/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	<b>0.12</b>	ND<0.005	NA
	11/7/2006	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	<b>0.077</b>	ND<0.005	NA
	2/6/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	ND<0.005	<b>0.13</b>	ND<0.005	<b>0.0028</b>
	5/8/2007	ND<0.002	ND<0.002	ND<0.005	ND<0.002	ND<0.002	ND<0.004	ND<0.005	<b>0.0023 J</b>	<b>0.11</b>	ND<0.005	NA

**NOTES:**

All concentrations reported in milligrams per liter (mg/L)

NA - Not analyzed

ND< - Not detected above the laboratory reporting limit shown

NS - Not sampled

TPH-g - Total petroleum hydrocarbons as gasoline

J - Analyte estimated concentration below reporting limit

**TABLE D3-A**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF INTRINSIC BIOREMEDIAL PARAMETER RESULTS (PREVIOUS CONSULTANTS)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Total Heterotrophic Bacteria (cfu/mL)	Pseudomonas Bacteria (MPN/100)	Methane (mg/L)	Ferrous Iron (mg/L)	Alkalinity (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
MW-104 A	7/22/1999	520	ND	NS	0.2	851	<0.050	45
	1/13/2000	ND	ND	0.322	0.88	849	<0.10	35
	8/3/2000	640	11	NS	0.93	798	<0.10	59
	2/7/2001	4400	<1	0.289	0.2	790	<0.10	98
	5/7/2002	NS	NS	0.257	3	720	<0.10	150
	9/24/2002	NS	NS	0.229	0.22	650	<0.10	250
MW-205	7/22/1999	100	ND	NS	0.5	648	<0.050	249
	1/11/2000	40	ND	2.24	0.95	771	<0.10	35
	8/3/2000	2200	36	NS	<0.10	794	<0.10	51
	2/7/2001	5600	<1	0.033	<0.10	740	<0.10	116
	5/8/2002	NS	NS	0.228	<0.10	610	<0.10	360
	9/23/2002	NS	NS	1.39	0.19	780	<0.10	64
MW-502	7/23/1999	28000	ND	NS	5.5	808	<0.050	<2
	1/13/2000	14000	ND	15.4	1.4	828	<0.10	4
	8/2/2000	10	<1	NS	0.85	834	<0.10	<2
	2/7/2001	24000	<1	0.984	0.7	840	<0.10	2
	5/9/2002	NS	NS	7.05	0.75	830	<0.10	<1.0
	9/23/2002	NS	NS	5.83	<0.10	850	<0.10	<1.0
MW-605	7/20/1999	40	ND	NS	<0.10	467	4.13	200
	1/11/2000	18	ND	NS	<0.10	486	5.2	181
	8/2/2000	<1	<1	NS	<0.10	530	5.8	203
	2/7/2001	1600	<1	NS	<0.10	510	7	164
	5/7/2002	NS	NS	<0.0010	<0.10	480	8.4	220
	9/24/2002	NS	NS	<0.0010	<0.10	490	8.3	220
MW-606	7/20/1999	72	ND	NS	<0.10	400	7.94	177
	1/11/2000	2.0	ND	NS	<0.10	390	8.6	236
	8/2/2000	<1	<1	NS	<0.10	406	8.8	260
	2/7/2001	3300	<1	<0.001	<0.10	390	9	261
	5/7/2002	NS	NS	<0.0010	<0.10	400	8.4	250
	9/24/2002	NS	NS	<0.0010	<0.10	390	8.6	280

**NOTES:**

Concentrations reported as "<" are not detected (ND) at or above the stated laboratory reporting limit

cfu/mL = colony forming units per milliliter

MPN/100 = most probable number of bacteria per 100 milliliters of sample

mg/L = Milligrams per liter

NS = Not sampled

ND = Bacteria were not detected

Duplicate sample data are shown in parentheses

Data table created from the following reports: *Semi-Annual Groundwater Monitoring Report: February 2001 Monitoring Event*, by Versar, dated June 6, 2001

*Semi-Annual Groundwater Monitoring Report: September 2002 Monitoring Event*, by TRC, dated December 9, 2002

**TABLE D3-B**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**  
**SUMMARY OF INTRINSIC BIOREMEDIAL PARAMETER RESULTS (ARCADIS BBL)**

**FORMER CENCO REFINERY**  
**SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	Methane (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Alkalinity (mg/L)	Ferrous Iron (mg/L)
MW-104A	10/7/2005	0.0695	<0.10	89	570	<0.10
	2/15/2006	0.059	<0.44	56.3	803	<0.10
	8/1/2006	Well temporarily capped/covered below ground surface for temporary roadway. Well reconstructed in January 2007.				
	11/7/2006	Well temporarily capped/covered below ground surface for temporary roadway. Well reconstructed in January 2007.				
	2/7/2007	<0.05	1.2	57	500	<0.10
	5/8/2007	<0.05	<0.11	30	810	0.1
MW-205	10/6/2005	3.33	<0.10	63	3600	0.44
	2/15/2006	1.036	<0.44	341	630	<0.10
	8/2/2006	8.10	<0.15	430	610	0.3
	11/8/2006	1.50	<0.11	470	530	0.6
	2/7/2007	0.22	<0.11	420	620	<0.1
	5/9/2007	0.25	<0.11	430	540	0.2
MW-503B	10/5/2005	1.38	<0.10	24	730	<0.10
	2/14/2006	0.581	<0.44	36.5	713	<0.10
	8/4/2006	1.20	<0.15	58	700	0.2
	11/10/2006	1.70	<0.11	66	560	0.1
	2/9/2007	0.62	<0.11	150	680	<0.1
	5/11/2007	0.25	<0.11	170.00	660	0.2
MW-605	10/5/2005	0.00125 (<0.001)	8.3 (8.3)	180 (170)	500 (500)	<0.10 (<0.10)
	2/14/2006	<0.005 (<0.005)	38.2 (37.8)	182 (184)	450 (460)	<0.10 (<0.10)
	8/1/2006	8.6 (8.6)	8.6 (8.6)	230 (230)	460 (460)	<0.10 (<0.10)
	11/7/2006	<0.05 (<0.05)	7.2 (6.6)	200 (200)	460 (470)	<0.10 (<0.10)
	2/6/2007	<0.05 (<0.05)	6.5 (6.5)	210 (210)	470 (480)	<0.10 (<0.10)
	5/8/2007	<0.05 (<0.05)	5.5 (5.5)	220 (220)	430 (440)	<0.1 (<0.1)
MW-606	10/5/2005	0.178	3.0	170	540	<0.10
	2/14/2006	<0.005	34.0	334	400	<0.10
	8/1/2006	<0.05	7.8	340	370	<0.10
	11/7/2006	<0.05	7.9	280	400	<0.10
	2/6/2007	<0.05	9.3	300	370	<0.10
	5/8/2007	<0.05	8.1	260	360	<0.1

**NOTES:**

Concentrations reported as "<" are not detected (ND) at or above the stated laboratory reporting limit

mg/L - Milligrams per liter

NS - Not sampled

Duplicate sample data are shown in parentheses